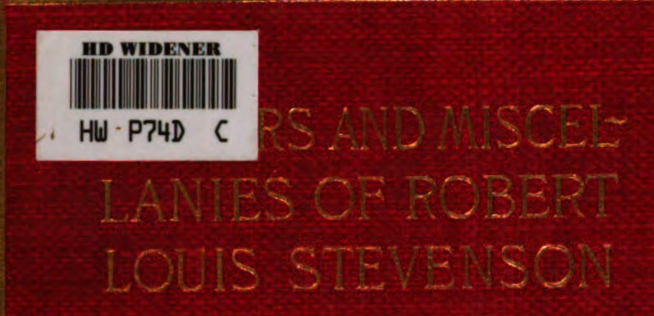
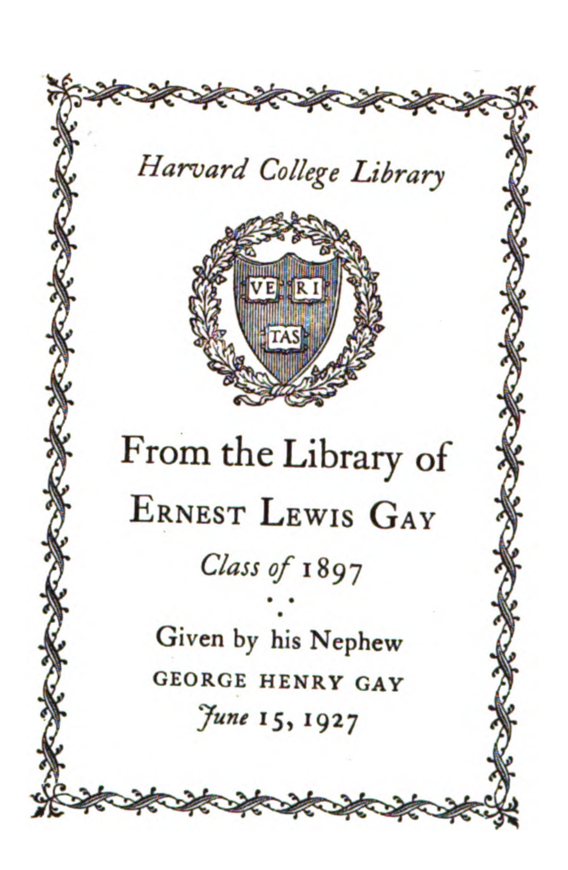
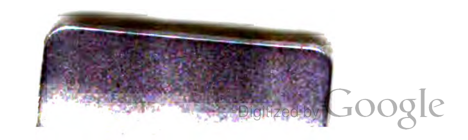



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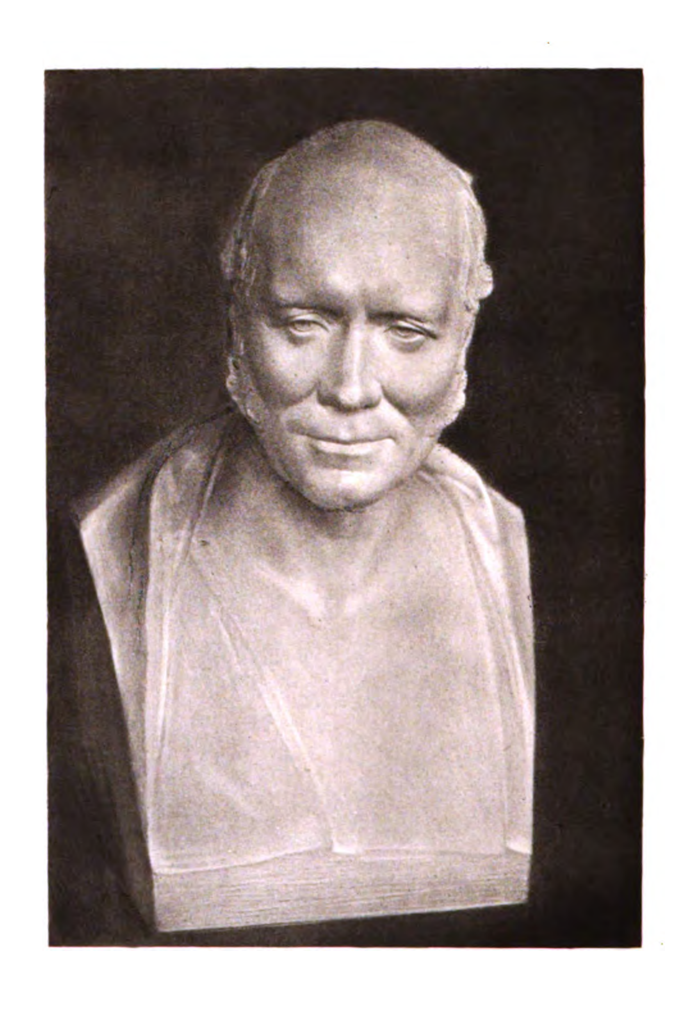

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ROBERT LOUIS STEVENSON

VOL. XVIII

MEMOIR OF FLEEMING JENKIN ❦ ❦ RECORDS OF A FAMILY OF ENGINEERS



*ROBERT STEVENSON*

# LETTERS AND MISCELLANIES OF ROBERT LOUIS STEVENSON

MEMOIR OF FLEEMING JENKIN ❦ ❦
RECORDS OF A FAMILY OF ENGINEERS ❦ ❦ ❦

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## *RECORDS OF A FAMILY OF ENGINEERS*

# PREFACE TO THE AMERICAN EDITION

On the death of Fleeming Jenkin, his family and friends determined to publish a selection of his various papers; by way of introduction, the following pages were drawn up; and the whole, forming two considerable volumes, has been issued in England. In the States, it has not been thought advisable to reproduce the whole; and the memoir appearing alone, shorn of that other matter which was at once its occasion and its justification, so large an account of a man so little known may seem to a stranger out of all proportion. But Jenkin was a man much more remarkable than the mere bulk or merit of his work approves him. It was in the world, in the commerce of friendship, by his brave attitude towards life, by his high moral value and unwearied intellectual effort, that he struck the minds of his contemporaries. His was an individual figure, such as authors delight to draw, and all men to read of, in the pages of a novel. His was a face worth painting for its own sake. If the sitter shall not seem to have justified the portrait, if Jenkin, after his death, shall not continue to make new friends, the fault will be altogether mine.

R. L. S.

Saranac, Oct., 1887.

MEMOIR OF FLEEMING JENKIN

## CHAPTER I

The Jenkins of Stowting — Fleeming's grandfather — Mrs. Buckner's fortune — Fleeming's father; goes to sea; at St. Helena; meets King Tom; service in the West Indies; end of his career — The Campbell-Jacksons — Fleeming's mother — Fleeming's uncle John.

IN the reign of Henry VIII., a family of the name of Jenkin, claiming to come from York, and bearing the arms of Jenkin ap Philip of St. Melans, are found reputably settled in the county of Kent. Persons of strong genealogical pinion pass from William Jenkin, Mayor of Folkestone in 1555, to his contemporary "John Jenkin, of the Citie of York, Receiver General of the County," and thence, by way of Jenkin ap Philip, to the proper summit of any Cambrian pedigree — a prince; "Guaith Voeth, Lord of Cardigan," the name and style of him. It may suffice, however, for the present, that these Kentish Jenkins must have undoubtedly derived from Wales, and being a stock of some efficiency, they struck root and grew to wealth and consequence in their new home.

Of their consequence we have proof enough in the fact that not only was William Jenkin (as already mentioned) Mayor of Folkestone in 1555, but no less than twenty-three times in the succeeding century and a half, a Jenkin (William, Thomas, Henry, or Robert) sat in the same place of humble honour. Of their wealth

we know that in the reign of Charles I., Thomas Jenkin of Eythorne was more than once in the market buying land, and notably, in 1633, acquired the manor of Stowting Court. This was an estate of some 320 acres, six miles from Hythe, in the Bailiwick and Hundred of Stowting, and the Lathe of Shipway, held of the Crown *in capite* by the service of six men and a constable to defend the passage of the sea at Sandgate. It had a chequered history before it fell into the hands of Thomas of Eythorne, having been sold and given from one to another — to the Archbishop, to Heringods, to the Burghershes, to Pavelys, Trivets, Cliffords, Wenlocks, Beauchamps, Nevilles, Kempes, and Clarkes: a piece of Kentish ground condemned to see new faces and to be no man's home. But from 1633 onward it became the anchor of the Jenkin family in Kent; and though passed on from brother to brother, held in shares between uncle and nephew, burthened by debts and jointures, and at least once sold and bought in again, it remains to this day in the hands of the direct line. It is not my design, nor have I the necessary knowledge, to give a history of this obscure family. But this is an age when genealogy has taken a new lease of life, and become for the first time a human science; so that we no longer study it in quest of the Guaith Voeths, but to trace out some of the secrets of descent and destiny; and as we study, we think less of Sir Bernard Burke and more of Mr. Galton. Not only do our character and talents lie upon the anvil and receive their temper during generations; but the very plot of our life's story unfolds itself on a scale of centuries, and the biography of the man is only an episode in the epic of the family. From this

point of view I ask the reader's leave to begin this notice of a remarkable man who was my friend, with the accession of his great-grandfather, John Jenkin.

This John Jenkin, a grandson of Damaris Kingsley, of the family of "Westward Ho!" was born in 1727, and married Elizabeth, daughter of Thomas Frewen, of Church House, Northiam. The Jenkins had now been long enough intermarrying with their Kentish neighbours to be Kentish folk themselves in all but name; and with the Frewens in particular their connection is singularly involved. John and his wife were each descended in the third degree from another Thomas Frewen, Vicar of Northiam, and brother to Accepted Frewen, Archbishop of York. John's mother had married a Frewen for a second husband. And the last complication was to be added by the Bishop of Chichester's brother, Charles Buckner, Vice-Admiral of the White, who was twice married, first to a paternal cousin of Squire John, and second to Anne, only sister of the Squire's wife, and already the widow of another Frewen. The reader must bear Mrs. Buckner in mind; it was by means of that lady that Fleeming Jenkin began life as a poor man. Meanwhile, the relationship of any Frewen to any Jenkin at the end of these evolutions presents a problem almost insoluble; and we need not wonder if Mrs. John, thus exercised in her immediate circle, was in her old age "a great genealogist of all Sussex families, and much consulted." The names Frewen and Jenkin may almost seem to have been interchangeable at will; and yet Fate proceeds with such particularity that it was perhaps on the point of name that the family was ruined.

The John Jenkins had a family of one daughter and five extravagant and unpractical sons. The eldest, Stephen, entered the Church and held the living of Salehurst, where he offered, we may hope, an extreme example of the clergy of the age. He was a handsome figure of a man; jovial and jocular; fond of his garden, which produced under his care the finest fruits of the neighbourhood; and like all the family, very choice in horses. He drove tandem; like Jehu, furiously. His saddle horse, Captain (for the names of horses are piously preserved in the family chronicle which I follow), was trained to break into a gallop as soon as the vicar's foot was thrown across its back; nor would the rein be drawn in the nine miles between Northiam and the Vicarage door. Debt was the man's proper element; he used to skulk from arrest in the chancel of his church; and the speed of Captain may have come sometimes handy. At an early age this unconventional parson married his cook, and by her he had two daughters and one son. One of the daughters died unmarried; the other imitated her father, and married "imprudently." The son, still more gallantly continuing the tradition, entered the army, loaded himself with debt, was forced to sell out, took refuge in the Marines, and was lost on the Dogger Bank in the war-ship *Minotaur*. If he did not marry below him, like his father, his sister, and a certain great-uncle William, it was perhaps because he never married at all.

The second brother, Thomas, who was employed in the General Post-Office, followed in all material points the example of Stephen, married "not very creditably," and spent all the money he could lay his hands on. He

died without issue; as did the fourth brother, John, who was of weak intellect and feeble health, and the fifth brother, William, whose brief career as one of Mrs. Buckner's satellites will fall to be considered later on. So soon, then, as the *Minotaur* had struck upon the Dogger Bank, Stowting and the line of the Jenkin family fell on the shoulders of the third brother, Charles.

Facility and self-indulgence are the family marks; facility (to judge by these imprudent marriages) being at once their quality and their defect; but in the case of Charles, a man of exceptional beauty and sweetness both of face and disposition, the family fault had quite grown to be a virtue, and we find him in consequence the drudge and milk-cow of his relatives. Born in 1766, Charles served at sea in his youth, and smelt both salt water and powder. The Jenkins had inclined hitherto, as far as I can make out, to the land service. Stephen's son had been a soldier; William (fourth of Stowting) had been an officer of the unhappy Braddock's in America, where, by the way, he owned and afterwards sold an estate on the James River, called after the parental seat; of which I should like well to hear if it still bears the name. It was probably by the influence of Captain Buckner, already connected with the family by his first marriage, that Charles Jenkin turned his mind in the direction of the navy; and it was in Buckner's own ship, the *Prothée,* 64, that the lad made his only campaign. It was in the days of Rodney's war, when the *Prothée,* we read, captured two large privateers to windward of Barbadoes, and was "materially and distinguishedly engaged" in both the actions with De Grasse. While at sea Charles kept a journal, and made strange

archaic pilot-book sketches, part plan, part elevation, some of which survive for the amusement of posterity. He did a good deal of surveying, so that here we may perhaps lay our finger on the beginning of Fleeming's education as an engineer. What is still more strange, among the relics of the handsome midshipman and his stay in the gun-room of the *Prothée,* I find a code of signals graphically represented, for all the world as it would have been done by his grandson.

On the declaration of peace, Charles, because he had suffered from scurvy, received his mother's orders to retire; and he was not the man to refuse a request, far less to disobey a command. Thereupon he turned farmer, a trade he was to practice on a large scale; and we find him married to a Miss Schirr, a woman of some fortune, the daughter of a London merchant. Stephen, the not very reverend, was still alive, galloping about the country or skulking in his chancel. It does not appear whether he let or sold the paternal manor to Charles; one or other, it must have been; and the sailor-farmer settled at Stowting, with his wife, his mother, his unmarried sister, and his sick brother John. Out of the six people of whom his nearest family consisted, three were in his own house, and two others (the horse-leeches, Stephen and Thomas) he appears to have continued to assist with more amiability than wisdom. He hunted, belonged to the Yeomanry, owned famous horses, Maggie and Lucy, the latter coveted by royalty itself. "Lord Rokeby, his neighbour, called him kinsman," writes my artless chronicler, "and altogether life was very cheery." At Stowting his three sons, John, Charles, and Thomas Frewen, and his younger daugh-

ter, Anna, were all born to him; and the reader should here be told that it is through the report of this second Charles (born 1801) that he has been looking on at these confused passages of family history.

In the year 1805 the ruin of the Jenkins was begun. It was the work of a fallacious lady already mentioned, Aunt Anne Frewen, a sister of Mrs. John. Twice married, first to her cousin Charles Frewen, clerk to the Court of Chancery, Brunswick Herald, and Usher of the Black Rod, and secondly to Admiral Buckner, she was denied issue in both beds, and being very rich — she died worth about 60,000*l.*, mostly in land — she was in perpetual quest of an heir. The mirage of this fortune hung before successive members of the Jenkin family until her death in 1825, when it dissolved and left the latest Alnaschar face to face with bankruptcy. The grandniece, Stephen's daughter, the one who had not "married imprudently," appears to have been the first; for she was taken abroad by the golden aunt, and died in her care at Ghent in 1792. Next she adopted William, the youngest of the five nephews; took him abroad with her — it seems as if that were in the formula; was shut up with him in Paris by the Revolution; brought him back to Windsor, and got him a place in the King's Body-Guard, where he attracted the notice of George III. by his proficiency in German. In 1797, being on guard at St. James's Palace, William took a cold which carried him off; and Aunt Anne was once more left heirless. Lastly, in 1805, perhaps moved by the Admiral, who had a kindness for his old midshipman, perhaps pleased by the good looks and the good nature of the man himself, Mrs. Buckner turned her eyes upon

Charles Jenkin. He was not only to be the heir, however, he was to be the chief hand in a somewhat wild scheme of family farming. Mrs. Jenkin, the mother, contributed 164 acres of land; Mrs. Buckner, 570, some at Northiam, some farther off; Charles let one-half of Stowting to a tenant, and threw the other and various scattered parcels into the common enterprise; so that the whole farm amounted to near upon a thousand acres, and was scattered over thirty miles of country. The ex-seaman of thirty-nine, on whose wisdom and ubiquity the scheme depended, was to live in the meanwhile without care or fear. He was to check himself in nothing; his two extravagances, valuable horses and worthless brothers, were to be indulged in comfort; and whether the year quite paid itself or not, whether successive years left accumulated savings or only a growing deficit, the fortune of the golden aunt should in the end repair all.

On this understanding Charles Jenkin transported his family to Church House, Northiam: Charles the second, then a child of three among the number. Through the eyes of the boy we have glimpses of the life that followed: of Admiral and Mrs. Buckner driving up from Windsor in a coach and six, two post-horses and their own four; of the house full of visitors, the great roasts at the fire, the tables in the servants' hall laid for thirty or forty for a month together; of the daily press of neighbours, many of whom, Frewens, Lords, Bishops, Batchellors, and Dynes, were also kinsfolk; and the parties "under the great spreading chestnuts of the old fore court," where the young people danced and made merry to the music of the village band. Or perhaps, in

the depth of winter, the father would bid young Charles saddle his pony; they would ride the thirty miles from Northiam to Stowting, with the snow to the pony's saddle girths, and be received by the tenants like princes.

This life of delights, with the continual visible comings and goings of the golden aunt, was well qualified to relax the fiber of the lads. John, the heir, a yeoman and a fox-hunter, "loud and notorious with his whip and spurs," settled down into a kind of Tony Lumpkin, waiting for the shoes of his father and his aunt. Thomas Frewen, the youngest, is briefly dismissed as "a handsome beau"; but he had the merit or the good fortune to become a doctor of medicine, so that when the crash came he was not empty-handed for the war of life. Charles, at the day-school of Northiam, grew so well acquainted with the rod, that his floggings became matter of pleasantry and reached the ears of Admiral Buckner. Hereupon that tall, rough-voiced formidable uncle entered with the lad into a covenant: every time that Charles was thrashed he was to pay the Admiral a penny; every day that he escaped, the process was to be reversed. "I recollect," writes Charles, "going crying to my mother to be taken to the Admiral to pay my debt." It would seem by these terms the speculation was a losing one; yet it is probable it paid indirectly by bringing the boy under remark. The Admiral was no enemy to dunces; he loved courage, and Charles, while yet little more than a baby, would ride the great horse into the pond. Presently it was decided that here was the stuff of a fine sailor; and at an early period the name of Charles Jenkin was entered on a ship's books.

From Northiam he was sent to another school at Boonshill, near Rye, where the master took "infinite delight" in strapping him. "It keeps me warm and makes you grow," he used to say. And the stripes were not altogether wasted, for the dunce, though still very "raw," made progress with his studies. It was known, moreover, that he was going to sea, always a ground of pre-eminence with schoolboys; and in his case the glory was not altogether future, it wore a present form when he came driving to Rye behind four horses in the same carriage with an Admiral. "I was not a little proud, you may believe," says he.

In 1814, when he was thirteen years of age, he was carried by his father to Chichester to the Bishop's Palace. The Bishop had heard from his brother the Admiral that Charles was likely to do well, and had an order from Lord Melville for the lad's admission to the Royal Naval College at Portsmouth. Both the Bishop and the Admiral patted him on the head and said, "Charles will restore the old family"; by which I gather with some surprise that, even in these days of open house at Northiam and golden hope of my aunt's fortune, the family was supposed to stand in need of restoration. But the past is apt to look brighter than nature, above all to those enamoured of their genealogy; and the ravages of Stephen and Thomas must have always given matter of alarm.

What with the flattery of bishops and admirals, the fine company in which he found himself at Portsmouth, his visits home, with their gaiety and greatness of life, his visits to Mrs. Buckner (soon a widow) at Windsor, where he had a pony kept for him, and visited at Lord

Melville's and Lord Harcourt's and the Leveson-Gowers, he began to have "bumptious notions," and his head was "somewhat turned with fine people"; as to some extent it remained throughout his innocent and honourable life.

In this frame of mind the boy was appointed to the *Conqueror,* Captain Davie, humorously known as Gentle Johnnie. The captain had earned this name by his style of discipline, which would have figured well in the pages of Marryat: "Put the prisoner's head in a bag and give him another dozen!" survives as a specimen of his commands; and the men were often punished twice or thrice in a week. On board the ship of this disciplinarian, Charles and his father were carried in a billy-boat from Sheerness in December, 1816: Charles with an outfit suitable to his pretensions, a twenty-guinea sextant and 120 dollars in silver, which were ordered into the care of the gunner. "The old clerks and mates," he writes, "used to laugh and jeer me for joining the ship in a billy-boat, and when they found I was from Kent, vowed I was an old Kentish smuggler. This to my pride, you will believe, was not a little offensive."

The *Conqueror* carried the flag of Vice-Admiral Plampin, commanding at the Cape and St. Helena; and at that all-important islet, in July, 1817, she relieved the flagship of Sir Pulteney Malcolm. Thus it befel that Charles Jenkin, coming too late for the epic of the French wars, played a small part in the dreary and disgraceful afterpiece of St. Helena. Life on the guardship was onerous and irksome. The anchor was never lifted, sail never made, the great guns were silent; none

was allowed on shore except on duty; all day the movements of the imperial captive were signalled to and fro; all night the boats rowed guard around the accessible portions of the coast. This prolonged stagnation and petty watchfulness in what Napoleon himself called that "unchristian" climate, told cruelly on the health of the ship's company. In eighteen months, according to O'Meara, the *Conqueror* had lost one hundred and ten men and invalided home one hundred and seven, "being more than a third of her complement." It does not seem that our young midshipman so much as once set eyes on Bonaparte; and yet in other ways Jenkin was more fortunate than some of his comrades. He drew in water-colour; not so badly as his father, yet ill enough; and this art was so rare aboard the *Conqueror* that even his humble proficiency marked him out and procured him some alleviations. Admiral Plampin had succeeded Napoleon at the Briars; and here he had young Jenkin staying with him to make sketches of the historic house. One of these is before me as I write, and gives a strange notion of the arts in our old English Navy. Yet it was again as an artist that the lad was taken for a run to Rio, and apparently for a second outing in a ten-gun brig. These, and a cruise of six weeks to windward of the island undertaken by the *Conqueror* herself in quest of health, were the only breaks in three years of murderous inaction; and at the end of that period Jenkin was invalided home, having "lost his health entirely."

As he left the deck of the guardship the historic part of his career came to an end. For forty-two years he continued to serve his country obscurely on the seas,

sometimes thanked for inconspicuous and honourable services, but denied any opportunity of serious distinction. He was first two years in the *Larne,* Captain Tait, hunting pirates and keeping a watch on the Turkish and Greek squadrons in the Archipelago. Captain Tait was a favourite with Sir Thomas Maitland, High Commissioner of the Ionian Islands — King Tom as he was called — who frequently took passage in the *Larne.* King Tom knew every inch of the Mediterranean, and was a terror to the officers of the watch. He would come on deck at night; and with his broad Scotch accent, "Well, sir," he would say, "what depth of water have ye? Well now, sound; and ye'll just find so or so many fathoms," as the case might be; and the obnoxious passenger was generally right. On one occasion, as the ship was going into Corfu, Sir Thomas came up the hatchway and cast his eyes towards the gallows. "Bangham" — Charles Jenkin heard him say to his aide-de-camp, Lord Bangham — "where the devil is that other chap? I left four fellows hanging there; now I can only see three. Mind there is another there to-morrow." And sure enough there was another Greek dangling the next day. "Captain Hamilton, of the *Cambrian,* kept the Greeks in order afloat," writes my author, "and King Tom ashore."

From 1823 onward, the chief scene of Charles Jenkin's activities was in the West Indies, where he was engaged off and on till 1844, now as a subaltern, now in a vessel of his own, hunting out pirates, "then very notorious" in the Leeward Islands, cruising after slavers, or carrying dollars and provisions for the Government. While yet a midshipman, he accompanied Mr. Cock-

burn to Caraccas and had a sight of Bolivar. In the brigantine *Griffon,* which he commanded in his last years in the West Indies, he carried aid to Guadeloupe after the earthquake, and twice earned the thanks of Government: once for an expedition to Nicaragua to extort, under threat of a blockade, proper apologies and a sum of money due to certain British merchants; and once during an insurrection in San Domingo, for the rescue of certain others from a perilous imprisonment and the recovery of a "chest of money" of which they had been robbed. Once, on the other hand, he earned his share of public censure. This was in 1837, when he commanded the *Romney,* lying in the inner harbour of Havannah. The *Romney* was in no proper sense a man-of-war; she was a slave-hulk, the bonded warehouse of the Mixed Slave Commission; where negroes, captured out of slavers under Spanish colours, were detained provisionally, till the Commission should decide upon their case and either set them free or bind them to apprenticeship. To this ship, already an eyesore to the authorities, a Cuban slave made his escape. The position was invidious; on one side were the tradition of the British flag and the state of public sentiment at home; on the other, the certainty that if the slave were kept, the *Romney* would be ordered at once out of the harbour, and the object of the Mixed Commission compromised. Without consultation with any other officer, Captain Jenkin (then lieutenant) returned the man to shore and took the Captain-General's receipt. Lord Palmerston approved his course; but the zealots of the anti-slave trade movement (never to be named without respect) were much dissatisfied; and thirty-nine years

later, the matter was again canvassed in Parliament, and Lord Palmerston and Captain Jenkin defended by Admiral Erskine in a letter to the *Times* (March 13, 1876).

In 1845, while still lieutenant, Charles Jenkin acted as Admiral Pigot's flag captain in the Cove of Cork, where there were some thirty pennants; and about the same time, closed his career by an act of personal bravery. He had proceeded with his boats to the help of a merchant vessel, whose cargo of combustibles had taken fire and was smouldering under hatches; his sailors were in the hold, where the fumes were already heavy, and Jenkin was on deck directing operations, when he found his orders were no longer answered from below: he jumped down without hesitation and slung up several insensible men with his own hand. For this act, he received a letter from the Lords of the Admiralty expressing a sense of his gallantry; and pretty soon after was promoted Commander, superseded, and could never again obtain employment.

In 1828 or 1829, Charles Jenkin was in the same watch with another midshipman, Robert Colin Campbell Jackson, who introduced him to his family in Jamaica. The father, the Honourable Robert Jackson, Custos Rotulorum of Kingston, came of a Yorkshire family, said to be originally Scotch; and on the mother's side, counted kinship with some of the Forbeses. The mother was Susan Campbell, one of the Campbells of Auchenbreck. Her father Colin, a merchant in Greenock, is said to have been the heir to both the estate and the baronetcy; he claimed neither, which casts a doubt upon the fact; but he had pride enough himself, and taught enough pride to his family, for any station or

descent in Christendom. He had four daughters. One married an Edinburgh writer, as I have it on a first account — a minister, according to another — a man at least of reasonable station, but not good enough for the Campbells of Auchenbreck; and the erring one was instantly discarded. Another married an actor of the name of Adcock, whom (as I receive the tale) she had seen acting in a barn; but the phrase should perhaps be regarded rather as a measure of the family annoyance, than a mirror of the facts. The marriage was not in itself unhappy; Adcock was a gentleman by birth and made a good husband; the family reasonably prospered, and one of the daughters married no less a man than Clarkson Stanfield. But by the father, and the two remaining Miss Campbells, people of fierce passions and a truly Highland pride, the derogation was bitterly resented. For long the sisters lived estranged, then Mrs. Jackson and Mrs. Adcock were reconciled for a moment, only to quarrel the more fiercely; the name of Mrs. Adcock was proscribed, nor did it again pass her sister's lips, until the morning when she announced: "Mary Adcock is dead; I saw her in her shroud last night." Second sight was hereditary in the house; and sure enough, as I have it reported, on that very night Mrs. Adcock had passed away. Thus, of the four daughters, two had, according to the idiotic notions of their friends, disgraced themselves in marriage; the others supported the honour of the family with a better grace, and married West Indian magnates of whom, I believe, the world has never heard and would not care to hear: So strange a thing is this hereditary pride. Of Mr. Jackson, beyond the fact that he was Fleeming's

grandfather, I know naught. His wife, as I have said, was a woman of fierce passions; she would tie her house slaves to the bed and lash them with her own hand; and her conduct to her wild and down-going sons, was a mixture of almost insane self-sacrifice and wholly insane violence of temper. She had three sons and one daughter. Two of the sons went utterly to ruin, and reduced their mother to poverty. The third went to India, a slim, delicate lad, and passed so wholly from the knowledge of his relatives that he was thought to be long dead. Years later, when his sister was living in Genoa, a red-bearded man of great strength and stature, tanned by years in India, and his hands covered with barbaric gems, entered the room unannounced, as she was playing the piano, lifted her from her seat, and kissed her. It was her brother, suddenly returned out of a past that was never very clearly understood, with the rank of general, many strange gems, many cloudy stories of adventure, and next his heart, the daguerreotype of an Indian prince with whom he had mixed blood.

The last of this wild family, the daughter, Henrietta Camilla, became the wife of the midshipman Charles, and the mother of the subject of this notice, Fleeming Jenkin. She was a woman of parts and courage. Not beautiful, she had a far higher gift, the art of seeming so; played the part of a belle in society, while far lovelier women were left unattended; and up to old age, had much of both the exigency and the charm that mark that character. She drew naturally, for she had no training, with unusual skill; and it was from her, and not from the two naval artists, that Fleeming inherited

his eye and hand. She played on the harp and sang with something beyond the talent of an amateur. At the age of seventeen, she heard Pasta in Paris; flew up in a fire of youthful enthusiasm; and the next morning, all alone and without introduction, found her way into the presence of the *prima donna* and begged for lessons. Pasta made her sing, kissed her when she had done, and though she refused to be her mistress, placed her in the hands of a friend. Nor was this all; for when Pasta returned to Paris, she sent for the girl (once at least) to test her progress. But Mrs. Jenkin's talents were not so remarkable as her fortitude and strength of will; and it was in an art for which she had no natural taste (the art of literature) that she appeared before the public. Her novels, though they attained and merited a certain popularity both in France and England, are a measure only of her courage. They were a task, not a beloved task; they were written for money in days of poverty, and they served their end. In the least thing as well as in the greatest, in every province of life as well as in her novels, she displayed the same capacity of taking infinite pains, which descended to her son. When she was about forty (as near as her age was known) she lost her voice; set herself at once to learn the piano, working eight hours a day; and attained to such proficiency that her collaboration in chamber music was courted by professionals. And more than twenty years later, the old lady might have been seen dauntlessly beginning the study of Hebrew. This is the more ethereal part of courage; nor was she wanting in the more material. Once when a neighbouring groom, a married man, had seduced her maid, Mrs. Jenkin mounted her horse, rode

over to the stable entrance and horsewhipped the man with her own hand.

How a match came about between this talented and spirited girl and the young midshipman, is not very easy to conceive. Charles Jenkin was one of the finest creatures breathing; loyalty, devotion, simple natural piety, boyish cheerfulness, tender and manly sentiment in the old sailor fashion, were in him inherent and inextinguishable either by age, suffering, or injustice. He looked, as he was, every inch a gentleman; he must have been everywhere notable, even among handsome men, both for his face and his gallant bearing; not so much that of a sailor, you would have said, as like one of those gentle and graceful soldiers that, to this day, are the most pleasant of Englishmen to see. But though he was in these ways noble, the dunce scholar of Northiam was to the end no genius. Upon all points that a man must understand to be a gentleman, to be upright, gallant, affectionate and dead to self, Captain Jenkin was more knowing than one among a thousand; outside of that, his mind was very largely blank. He had indeed a simplicity that came near to vacancy; and in the first forty years of his married life, this want grew more accentuated. In both families imprudent marriages had been the rule; but neither Jenkin nor Campbell had ever entered into a more unequal union. It was the captain's good looks, we may suppose, that gained for him this elevation; and in some ways and for many years of his life, he had to pay the penalty. His wife, impatient of his incapacity and surrounded by brilliant friends, used him with a certain contempt. She was the managing partner; the life was hers, not his; after his retirement

they lived much abroad, where the poor captain, who could never learn any language but his own, sat in the corner mumchance; and even his son, carried away by his bright mother, did not recognize for long the treasures of simple chivalry that lay buried in the heart of his father. Yet it would be an error to regard this marriage as unfortunate. It not only lasted long enough to justify itself in a beautiful and touching epilogue, but it gave to the world the scientific work and what (while time was) were of far greater value, the delightful qualities of Fleeming Jenkin. The Kentish-Welsh family, facile, extravagant, generous to a fault and far from brilliant, had given the father, an extreme example of its humble virtues. On the other side, the wild, cruel, proud, and somewhat blackguard stock of the Scotch Campbell-Jacksons, had put forth, in the person of the mother, all its force and courage.

The marriage fell in evil days. In 1823, the bubble of the Golden Aunt's inheritance had burst. She died holding the hand of the nephew she had so wantonly deceived; at the last she drew him down and seemed to bless him, surely with some remorseful feeling; for when the will was opened, there was not found so much as the mention of his name. He was deeply in debt; in debt even to the estate of his deceiver, so that he had to sell a piece of land to clear himself. "My dear boy," he said to Charles, "there will be nothing left for you. I am a ruined man." And here follows for me the strangest part of this story. From the death of the treacherous aunt, Charles Jenkin, senior, had still some nine years to live; it was perhaps too late for him to turn to saving, and perhaps his affairs were past

restoration. But his family at least had all this while to prepare; they were still young men, and knew what they had to look for at their father's death; and yet when that happened in September, 1831, the heir was still apathetically waiting. Poor John, the days of his whips and spurs, and Yeomanry dinners, were quite over; and with that incredible softness of the Jenkin nature, he settled down for the rest of a long life, into something not far removed above a peasant. The mill farm at Stowting had been saved out of the wreck; and here he built himself a house on the Mexican model, and made the two ends meet with rustic thrift, gathering dung with his own hands upon the road and not at all abashed at his employment. In dress, voice, and manner, he fell into mere country plainness; lived without the least care for appearances, the least regret for the past or discontent with the present; and when he came to die, died with Stoic cheerfulness, announcing that he had had a comfortable time and was yet well pleased to go. One would think there was little active virtue to be inherited from such a race; and yet in this same voluntary peasant, the special gift of Fleeming Jenkin was already half developed. The old man to the end was perpetually inventing; his strange, ill-spelled, unpunctuated correspondence is full (when he does not drop into cookery receipts) of pumps, road engines, steam-diggers, steam-ploughs, and steam-threshing machines; and I have it on Fleeming's word that what he did was full of ingenuity — only, as if by some cross destiny, useless. These disappointments he not only took with imperturbable good humor, but rejoiced with a particular relish over his nephew's suc-

cess in the same field. "I glory in the professor," he wrote to his brother; and to Fleeming himself, with a touch of simple drollery, "I was much pleased with your lecture, but why did you hit me so hard with Conisure's" (connoisseur's, *quasi* amateur's) "engineering? Oh, what presumption!—either of you or *myself*!" A quaint, pathetic figure, this of uncle John, with his dung cart and his inventions; and the romantic fancy of his Mexican house; and his craze about the Lost Tribes, which seemed to the worthy man the key of all perplexities; and his quiet conscience, looking back on a life not altogether vain, for he was a good son to his father while his father lived, and when evil days approached, he had proved himself a cheerful Stoic.

It followed from John's inertia, that the duty of winding up the estate fell into the hands of Charles. He managed it with no more skill than might be expected of a sailor ashore, saved a bare livelihood for John and nothing for the rest. Eight months later, he married Miss Jackson; and with her money, bought in some two-thirds of Stowting. In the beginning of the little family history which I have been following to so great an extent, the Captain mentions, with a delightful pride: "A Court Baron and Court Leet are regularly held by the Lady of the Manor, Mrs. Henrietta Camilla Jenkin"; and indeed the pleasure of so describing his wife, was the most solid benefit of the investment; for the purchase was heavily encumbered and paid them nothing till some years before their death. In the meanwhile, the Jackson family also, what with wild sons, an indulgent mother and the impending emancipation of the

slaves, was moving nearer and nearer to beggary; and thus of two doomed and declining houses, the subject of this memoir was born, heir to an estate and to no money, yet with inherited qualities that were to make him known and loved.

## CHAPTER II

### 1833—1851

Birth and Childhood — Edinburgh — Frankfort-on-the-Main — Paris — The Revolution of 1848 — The Insurrection — Flight to Italy — Sympathy with Italy — The Insurrection in Genoa — A Student in Genoa — The Lad and his Mother.

HENRY CHARLES FLEEMING JENKIN (Fleeming, pronounced Flemming, to his friends and family) was born in a Government building on the coast of Kent, near Dungeness, where his father was serving at the time in the Coastguard, on March 25, 1833, and named after Admiral Fleeming, one of his father's protectors in the navy.

His childhood was vagrant like his life. Once he was left in the care of his grandmother Jackson, while Mrs. Jenkin sailed in her husband's ship and stayed a year at the Havannah. The tragic woman was besides from time to time a member of the family; she was in distress of mind and reduced in fortune by the misconduct of her sons; her destitution and solitude made it a recurring duty to receive her, her violence continually enforced fresh separations. In her passion of a disappointed mother, she was a fit object of pity; but her grandson, who heard her load his own mother with cruel insults and reproaches, conceived for her an indignant and impatient hatred, for which he blamed himself in later life. It is strange from this point of view to

see his childish letters to Mrs. Jackson; and to think that a man, distinguished above all by stubborn truthfulness, should have been brought up to such dissimulation. But this is of course unavoidable in life; it did no harm to Jenkin; and whether he got harm or benefit from a so early acquaintance with violent and hateful scenes, is more than I can guess. The experience, at least, was formative; and in judging his character it should not be forgotten. But Mrs. Jackson was not the only stranger in their gates; the Captain's sister, Aunt Anna Jenkin, lived with them until her death; she had all the Jenkin beauty of countenance, though she was unhappily deformed in body and of frail health; and she even excelled her gentle and ineffectual family in all amiable qualities. So that each of the two races from which Fleeming sprang, had an outpost by his very cradle; the one he instinctively loved, the other hated; and the life-long war in his members had begun thus early by a victory for what was best.

We can trace the family from one country place to another in the South of Scotland; where the child learned his taste for sport by riding home the pony from the moors. Before he was nine he could write such a passage as this about a Hallowe'en observance: "I pulled a middling-sized cabbage-runt with a pretty sum of gold about it. No witches would run after me when I was sowing my hempseed this year; my nuts blazed away together very comfortably to the end of their lives, and when mamma put hers in which were meant for herself and papa they blazed away in the like manner." Before he was ten he could write, with a really irritating precocity, that he had been "making some pictures

from a book called "Les Français peints par eux-mêmes." . . . It is full of pictures of all classes, with a description of each in French. The pictures are a little caricatured, but not much." Doubtless this was only an echo from his mother, but it shows the atmosphere in which he breathed. It must have been a good change for this art critic to be the playmate of Mary Macdonald, their gardener's daughter at Barjarg, and to sup with her family on potatoes and milk; and Fleeming himself attached some value to this early and friendly experience of another class.

His education, in the formal sense, began at Jedburgh. Thence he went to the Edinburgh Academy, where he was the classmate of Tait and Clerk Maxwell, bore away many prizes, and was once unjustly flogged by Rector Williams. He used to insist that all his bad schoolfellows had died early, a belief amusingly characteristic of the man's consistent optimism. In 1846 the mother and son proceeded to Frankfort-on-the-Main, where they were soon joined by the father, now reduced to inaction and to play something like third fiddle in his narrow household. The emancipation of the slaves had deprived them of their last resource beyond the half-pay of a captain; and life abroad was not only desirable for the sake of Fleeming's education, it was almost enforced by reasons of economy. But it was, no doubt, somewhat hard upon the captain. Certainly that perennial boy found a companion in his son; they were both active and eager, both willing to be amused, both young, if not in years, then in character. They went out together on excursions and sketched old castles, sitting side by side; they had an angry rivalry

in walking, doubtless equally sincere upon both sides; and indeed we may say that Fleeming was exceptionally favoured, and that no boy had ever a companion more innocent, engaging, gay, and airy. But although in this case it would be easy to exaggerate its import, yet, in the Jenkin family also, the tragedy of the generations was proceeding, and the child was growing out of his father's knowledge. His artistic aptitude was of a different order. Already he had his quick sight of many sides of life; he already overflowed with distinctions and generalizations, contrasting the dramatic art and national character of England, Germany, Italy, and France. If he were dull, he would write stories and poems. "I have written," he says at thirteen, "a very long story in heroic measure, 300 lines, and another Scotch story and innumerable bits of poetry"; and at the same age he had not only a keen feeling for scenery, but could do something with his pen to call it up. I feel I do always less than justice to the delightful memory of Captain Jenkin; but with a lad of this character, cutting the teeth of his intelligence, he was sure to fall into the background.

The family removed in 1847 to Paris, where Fleeming was put to school under one Deluc. There he learned French, and (if the captain is right) first began to show a taste for mathematics. But a far more important teacher than Deluc was at hand; the year 1848, so momentous for Europe, was momentous also for Fleeming's character. The family politics were Liberal; Mrs. Jenkin, generous before all things, was sure to be upon the side of exiles; and in the house of a Paris friend of hers, Mrs. Turner — already known to fame as Shelley's

Cornelia de Boinville — Fleeming saw and heard such men as Manin, Gioberti, and the Ruffinis. He was thus prepared to sympathize with revolution; and when the hour came, and he found himself in the midst of stirring and influential events, the lad's whole character was moved. He corresponded at that time with a young Edinburgh friend, one Frank Scott; and I am here going to draw somewhat largely on this boyish correspondence. It gives us at once a picture of the Revolution and a portrait of Jenkin at fifteen; not so different (his friends will think) from the Jenkin of the end — boyish, simple, opinionated, delighting in action, delighting before all things in any generous sentiment.

"*February* 23, 1848.

"When at 7 o'clock to-day I went out, I met a large band going round the streets, calling on the inhabitants to illuminate their houses, and bearing torches. This was all very good fun, and everybody was delighted; but as they stopped rather long and were rather turbulent in the Place de la Madeleine, near where we live" [in the Rue Caumartin] "a squadron of dragoons came up, formed, and charged at a hand-gallop. This was a very pretty sight; the crowd was not too thick, so they easily got away; and the dragoons only gave blows with the back of the sword, which hurt but did not wound. I was as close to them as I am now to the other side of the table; it was rather impressive, however. At the second charge they rode on the pavement and knocked the torches out of the fellows' hands; rather a shame, too — would n't be stood in England. . . .

[At] "ten minutes to ten . . . I went a long way along the Boulevards, passing by the office of Foreign Affairs, where Guizot lives, and where to-night there were about a thousand troops protecting him from the fury of the populace. After this was passed, the number of the people thickened, till about half a mile further on, I met a troop of vagabonds, the wildest vagabonds in the world — Paris vagabonds, well armed, having probably broken into gunsmiths' shops and taken the guns and swords. They were about a hundred. These were followed by about a thousand (I am rather diminishing than exaggerating numbers all through), indifferently armed with rusty sabres, sticks, etc. An uncountable troop of gentlemen, workmen, shopkeepers' wives (Paris women dare anything), ladies' maids, common women — in fact, a crowd of all classes, though by far the greater number were of the better dressed class — followed. Indeed, it was a splendid sight: the mob in front chanting the '*Marseillaise*,' the national war hymn, grave and powerful, sweetened by the night air — though night in these splendid streets was turned into day, every window was filled with lamps, dim torches were tossing in the crowd . . . for Guizot has late this night given in his resignation, and this was an improvised illumination.

"I and my father had turned with the crowd, and were close behind the second troop of vagabonds. Joy was on every face. I remarked to papa that 'I would not have missed the scene for anything, I might never see such a splendid one,' when *plong* went one shot — every face went pale — *r-r-r-r-r* went the whole detachment, [and] the whole crowd of gentlemen and

ladies turned and cut. Such a scene! — ladies, gentlemen, and vagabonds went sprawling in the mud, not shot but tripped up; and those that went down could not rise, they were trampled over. . . . I ran a short time straight on and did not fall, then turned down a side street, ran fifty yards and felt tolerably safe; looked for papa, did not see him; so walked on quickly, giving the news as I went." [It appears, from another letter, the boy was the first to carry word of the firing to the Rue St. Honoré; and that his news wherever he brought it was received with hurrahs. It was an odd entrance upon life for a little English lad, thus to play the part of rumour in such a crisis of the history of France.]

"But now a new fear came over me. I had little doubt but my papa was safe, but my fear was that he should arrive at home before me and tell the story; in that case I knew my mamma would go half mad with fright, so on I went as quick as possible. I heard no more discharges. When I got half way home, I found my way blocked up by troops. That way or the Boulevards I must pass. In the Boulevards they were fighting, and I was afraid all other passages might be blocked up . . . and I should have to sleep in a hotel in that case, and then my mamma — however, after a long *détour,* I found a passage and ran home, and in our street joined papa.

" . . . I'll tell you to-morrow the other facts gathered from newspapers and papa. . . . To-night I have given you what I have seen with my own eyes an hour ago, and began trembling with excitement and fear. If I have been too long on this one subject, it is because it is yet before my eyes."

"*Monday, 24th.*

"It was that fire raised the people. There was fighting all through the night in the Rue Notre Dame de Lorette, on the Boulevards where they had been shot at, and at the Porte St. Denis. At ten o'clock, they resigned the house of the Minister of Foreign Affairs (where the disastrous volley was fired) to the people, who immediately took possession of it. I went to school, but [was] hardly there when the row in that quarter commenced. Barricades began to be fixed. Everyone was very grave now; the *externes* went away, but no one came to fetch me, so I had to stay. No lessons could go on. A troop of armed men took possession of the barricades, so it was supposed I should have to sleep there. The revolters came and asked for arms, but Deluc (head-master) is a National Guard, and he said he had only his own and he wanted them; but he said he would not fire on them. Then they asked for wine, which he gave them. They took good care not to get drunk, knowing they would not be able to fight. They were very polite and behaved extremely well.

"About 12 o'clock a servant came for a boy who lived near me, [and] Deluc thought it best to send me with him. We heard a good deal of firing near, but did not come across any of the parties. As we approached the railway, the barricades were no longer formed of palings, planks, or stones; but they had got all the omnibuses as they passed, sent the horses and passengers about their business, and turned them over. A double row of overturned coaches made a capital barricade, with a few paving stones.

"When I got home I found to my astonishment that in our fighting quarter it was much quieter. Mamma had just been out seeing the troops in the Place de la Concorde, when suddenly the Municipal Guard, now fairly exasperated, prevented the National Guard from proceeding, and fired at them; the National Guard had come with their muskets not loaded, but at length returned the fire. Mamma saw the National Guard fire. The Municipal Guard were round the corner. She was delighted, for she saw no person killed, though many of the Municipals were. . . .

"I immediately went out with my papa (mamma had just come back with him) and went to the Place de la Concorde. There was an enormous quantity of troops in the Place. Suddenly the gates of the gardens of the Tuileries opened; we rushed forward, out galloped an enormous number of cuirassiers, in the middle of which were a couple of low carriages, said first to contain the Count de Paris and the Duchess of Orleans, but afterwards they said it was the King and Queen; and then I heard he had abdicated. I returned and gave the news.

"Went out again up the Boulevards. The house of the Minister of Foreign Affairs was filled with people and '*Hôtel du Peuple*' written on it; the Boulevards were barricaded with fine old trees that were cut down and stretched all across the road. We went through a great many little streets, all strongly barricaded, and sentinels of the people at the principal of them. The streets were very unquiet, filled with armed men and women, for the troops had followed the ex-King to Neuilly and left Paris in the power of the people. We

met the captain of the Third Legion of the National Guard (who had principally protected the people), badly wounded by a Municipal Guard, stretched on a litter. He was in possession of his senses. He was surrounded by a troop of men crying 'Our brave captain —we have him yet—he's not dead! *Vive la Réforme!*' This cry was responded to by all, and every one saluted him as he passed. I do not know if he was mortally wounded. That Third Legion has behaved splendidly.

"I then returned, and shortly afterwards went out again to the garden of the Tuileries. They were given up to the people and the palace was being sacked. The people were firing blank cartridges to testify their joy, and they had a cannon on the top of the palace. It was a sight to see a palace sacked and armed vagabonds firing out of the windows, and throwing shirts, papers, and dresses of all kinds out of the windows. They are not rogues, these French; they are not stealing, burning, or doing much harm. In the Tuileries they have dressed up some of the statues, broken some, and stolen nothing but queer dresses. I say, Frank, you must not hate the French; hate the Germans if you like. The French laugh at us a little, and call out *God-dam* in the streets; but to-day, in civil war, when they might have put a bullet through our heads, I never was insulted once.

"At present we have a provisional Government, consisting of Odion [*sic*] Barrot, Lamartine, Marast, and some others; among them a common workman, but very intelligent. This is a triumph of liberty—rather!

"Now then, Frank, what do you think of it? I in a

revolution and out all day. Just think, what fun! So it was at first, till I was fired at yesterday; but to-day I was not frightened, but it turned me sick at heart, I don't know why. There has been no great bloodshed, [though] I certainly have seen men's blood several times. But there's something shocking to see a whole armed populace, though not furious, for not one single shop has been broken open, except the gunsmiths' shops, and most of the arms will probably be taken back again. For the French have no cupidity in their nature; they don't like to steal — it is not in their nature. I shall send this letter in a day or two, when I am sure the post will go again. I know I have been a long time writing, but I hope you will find the matter of this letter interesting, as coming from a person resident on the spot; though probably you don't take much interest in the French, but I can think, write, and speak on no other subject.

"*Feb.* 25.

"There is no more fighting, the people have conquered; but the barricades are still kept up, and the people are in arms, more than ever fearing some new act of treachery on the part of the ex-King. The fight where I was was the principal cause of the Revolution. I was in little danger from the shot, for there was an immense crowd in front of me, though quite within gun-shot. [By another letter, a hundred yards from the troops.] I wished I had stopped there.

"The Paris streets are filled with the most extraordinary crowds of men, women and children, ladies and gentlemen. Every person joyful. The bands of armed men are perfectly polite. Mamma and aunt to-day

walked through armed crowds alone, that were firing blank cartridges in all directions. Every person made way with the greatest politeness, and one common man with a blouse, coming by accident against her, immediately stopped to beg her pardon in the politest manner. There are few drunken men. The Tuileries is still being run over by the people; they only broke two things, a bust of Louis Philippe and one of Marshal Bugeaud, who fired on the people. . . .

"I have been out all day again to-day, and precious tired I am. The Republican party seem the strongest, and are going about with red ribbons in their buttonholes. . . .

"The title of 'Mister' is abandoned; they say nothing but 'Citizen,' and the people are shaking hands amazingly. They have got to the top of the public monuments, and, mingling with bronze or stone statues, five or six make a sort of *tableau vivant,* the top man holding up the red flag of the Republic; and right well they do it, and very picturesque they look. I think I shall put this letter in the post to-morrow, as we got a letter to-night.

(On Envelope.)

"M. Lamartine has now by his eloquence conquered the whole armed crowd of citizens threatening to kill him if he did not immediately proclaim the Republic and red flag. He said he could not yield to the citizens of Paris alone, that the whole country must be consulted, that he chose the tricolour, for it had followed and accompanied the triumphs of France all over the world, and that the red flag had only been dipped in the blood of the citizens. For sixty hours he has been

quieting the people: he is at the head of everything. Don't be prejudiced, Frank, by what you see in the papers. The French have acted nobly, splendidly; there has been no brutality, plundering, or stealing. . . . I did not like the French before; but in this respect they are the finest people in the world. I am so glad to have been here."

And there one could wish to stop with this apotheosis of liberty and order read with the generous enthusiasm of a boy; but as the reader knows, it was but the first act of the piece. The letters, vivid as they are, written as they were by a hand trembling with fear and excitement, yet do injustice, in their boyishness of tone, to the profound effect produced. At the sound of these songs and shot of cannon, the boy's mind awoke. He dated his own appreciation of the art of acting from the day when he saw and heard Rachel recite the "*Marseillaise*" at the Français, the tricolour in her arms. What is still more strange, he had been up to then invincibly indifferent to music, insomuch that he could not distinguish "God save the Queen" from "Bonnie Dundee"; and now, to the chanting of the mob, he amazed his family by learning and singing "*Mourir pour la Patrie.*" But the letters, though they prepare the mind for no such revolution in the boy's tastes and feelings, are yet full of entertaining traits. Let the reader note Fleeming's eagerness to influence his friend Frank, an incipient Tory (no less) as further history displayed; his unconscious indifference to his father and devotion to his mother, betrayed in so many significant expressions and omissions; the sense of dignity of this diminutive "per-

son resident on the spot," who was so happy as to escape insult; and the strange picture of the household — father, mother, son, and even poor Aunt Anna — all day in the streets in the thick of this rough business, and the boy packed off alone to school in a distant quarter on the very morrow of the massacre.

They had all the gift of enjoying life's texture as it comes; they were all born optimists. The name of liberty was honoured in that family, its spirit also, but within stringent limits; and some of the foreign friends of Mrs. Jenkin were, as I have said, men distinguished on the Liberal side. Like Wordsworth, they beheld

France standing on the top of golden hours
And human nature seeming born again.

At once, by temper and belief, they were formed to find their element in such a decent and whiggish convulsion, spectacular in its course, moderate in its purpose. For them,

Bliss was it in that dawn to be alive,
But to be young was very heaven.

And I cannot but smile when I think that (again like Wordsworth) they should have so specially disliked the consequence.

It came upon them by surprise. Liberal friends of the precise right shade of colour had assured them, in Mrs. Turner's drawing-room, that all was for the best; and they rose on January 23 without fear. About the middle of the day they heard the sound of musketry, and the next morning they were awakened by the cannonade. The French, who had behaved so "splendidly,"

pausing, at the voice of Lamartine, just where judicious Liberals could have desired — the French, who had "no cupidity in their nature," were now about to play a variation on the theme rebellion. The Jenkins took refuge in the house of Mrs. Turner, the house of the false prophets, "Anna going with Mrs. Turner, that she might be prevented speaking English, Fleeming, Miss H. and I (it is the mother who writes) walking together. As we reached the Rue de Clichy, the report of the cannon sounded close to our ears and made our hearts sick, I assure you. The fighting was at the barrier Rochechouart, a few streets off. All Saturday and Sunday we were a prey to great alarm, there came so many reports that the insurgents were getting the upper hand. One could tell the state of affairs from the extreme quiet or the sudden hum in the street. When the news was bad, all the houses closed and the people disappeared; when better, the doors half opened and you heard the sound of men again. From the upper windows we could see each discharge from the Bastille — I mean the smoke rising — and also the flames and smoke from the Boulevard la Chapelle. We were four ladies, and only Fleeming by way of a man, and difficulty enough we had to keep him from joining the National Guards — his pride and spirit were both fired. You cannot picture to yourself the multitudes of soldiers, guards, and armed men of all sorts we watched — not close to the window, however, for such havoc had been made among them by the firing from the windows, that as the battalions marched by, they cried, "Fermez vos fenêtres!" and it was very painful to watch their looks of anxiety and suspicion as they marched by."

"The Revolution," writes Fleeming to Frank Scott, "was quite delightful: getting popped at and run at by horses, and giving sous for the wounded into little boxes guarded by the raggedest, picturesquest, delightfullest, sentinels; but the insurrection! ugh, I shudder to think at [*sic*] it." He found it "not a bit of fun sitting boxed up in the house four days almost . . . . I was the only *gentleman* to four ladies, and didn't they keep me in order! I did not dare to show my face at a window, for fear of catching a stray ball or being forced to enter the National Guard; [for] they would have it I was a man full-grown, French, and every way fit to fight. And my mamma was as bad as any of them; she that told me I was a coward last time if I stayed in the house a quarter of an hour! But I drew, examined the pistols, of which I found lots with caps, powder, and ball, while sometimes murderous intentions of killing a dozen insurgents and dying violently overpowered by numbers. . . ." We may drop this sentence here: under the conduct of its boyish writer, it was to reach no legitimate end.

Four days of such a discipline had cured the family of Paris; the same year Fleeming was to write, in answer apparently to a question of Frank Scott's, "I could find no national game in France but revolutions"; and the witticism was justified in their experience. On the first possible day, they applied for passports, and were advised to take the road to Geneva. It appears it was scarce safe to leave Paris for England. Charles Reade, with keen dramatic gusto, had just smuggled himself out of that city in the bottom of a cab. English gold had been found on the insurgents, the name of England

was in evil odour; and it was thus—for strategic reasons, so to speak—that Fleeming found himself on the way to that Italy where he was to complete his education, and for which he cherished to the end a special kindness.

It was in Genoa they settled; partly for the sake of the captain, who might there find naval comrades; partly because of the Ruffinis, who had been friends of Mrs. Jenkin in their time of exile and were now considerable men at home; partly, in fine, with hopes that Fleeming might attend the University; in preparation for which he was put at once to school. It was the year of Novara; Mazzini was in Rome; the dry bones of Italy were moving; and for people of alert and liberal sympathies the time was inspiriting. What with exiles turned Ministers of State, universities thrown open to Protestants, Fleeming himself the first Protestant student in Genoa, and thus, as his mother writes, "a living instance of the progress of liberal ideas"—it was little wonder if the enthusiastic young woman and the clever boy were heart and soul upon the side of Italy. It should not be forgotten that they were both on their first visit to that country; the mother still "child enough" to be delighted when she saw "real monks"; and both mother and son thrilling with the first sight of snowy Alps, the blue Mediterranean, and the crowded port and the palaces of Genoa. Nor was their zeal without knowledge. Ruffini, deputy for Genoa and soon to be head of the University, was at their side; and by means of him the family appear to have had access to much Italian society. To the end, Fleeming professed his admiration of the Piedmontese

and his unalterable confidence in the future of Italy under their conduct; for Victor Emanuel, Cavour, the first La Marmora and Garibaldi, he had varying degrees of sympathy and praise: perhaps highest for the King, whose good sense and temper filled him with respect — perhaps least for Garibaldi, whom he loved but yet mistrusted.

But this is to look forward: these were the days not of Victor Emanuel but of Charles Albert; and it was on Charles Albert that mother and son had now fixed their eyes as on the sword-bearer of Italy. On Fleeming's sixteenth birthday, they were, the mother writes, "in great anxiety for news from the army. You can have no idea what it is to live in a country where such a struggle is going on. The interest is one that absorbs all others. We eat, drink, and sleep to the noise of drums and musketry. You would enjoy and almost admire Fleeming's enthusiasm and earnestness — and courage, I may say — for we are among the small minority of English who side with the Italians. The other day, at dinner at the Consul's, boy as he is, and in spite of my admonitions, Fleeming defended the Italian cause, and so well that he "tripped up the heels of his adversary" simply from being well-informed on the subject and honest. He is as true as steel, and for no one will he bend right or left. . . . Do not fancy him a Bobadil," she adds, "he is only a very true candid boy. I am so glad he remains in all respects but information a great child."

If this letter is correctly dated, the cause was already lost and the King had already abdicated when these lines were written. No sooner did the news reach

Genoa, than there began "tumultuous movements"; and the Jenkins received hints it would be wise to leave the city. But they had friends and interests; even the captain had English officers to keep him company, for Lord Hardwicke's ship, the *Vengeance*, lay in port; and supposing the danger to be real, I cannot but suspect the whole family of a divided purpose, prudence being possibly weaker than curiosity. Stay, at least, they did, and thus rounded their experience of the revolutionary year. On Sunday, April 1, Fleeming and the captain went for a ramble beyond the walls, leaving Aunt Anna and Mrs. Jenkin to walk on the bastions with some friends. On the way back, this party turned aside to rest in the Church of the Madonna delle Grazie. "We had remarked," writes Mrs. Jenkin, "the entire absence of sentinels on the ramparts, and how the cannons were left in solitary state; and I had just remarked "How quiet everything is!" when suddenly we heard the drums begin to beat and distant shouts. *Accustomed as we are* to revolutions, we never thought of being frightened." For all that, they resumed their return home. On the way they saw men running and vociferating, but nothing to indicate a general disturbance, until, near the Duke's palace, they came upon and passed a shouting mob dragging along with it three cannons. It had scarceiy passed before they heard "a rushing sound"; one of the gentlemen thrust back the party of ladies under a shed, and the mob passed again. A fine-looking young man was in their hands; and Mrs. Jenkin saw him with his mouth open as if he sought to speak, saw him tossed from one to another like a ball, and then saw him no more. "He was dead a few

instants after, but the crowd hid that terror from us. My knees shook under me and my sight left me." With this street tragedy, the curtain rose upon their second revolution.

The attack on Spirito Santo, and the capitulation and departure of the troops speedily followed. Genoa was in the hands of the Republicans, and now came a time when the English residents were in a position to pay some return for hospitality received. Nor were they backward. Our Consul (the same who had the benefit of correction from Fleeming) carried the Intendente on board the *Vengeance,* escorting him through the streets, getting along with him on board a shore boat, and when the insurgents levelled their muskets, standing up and naming himself, "*Console Inglese.*" A friend of the Jenkins', Captain Glynne, had a more painful, if a less dramatic part. One Colonel Nosozzo had been killed (I read) while trying to prevent his own artillery from firing on the mob; but in that hell's cauldron of a distracted city, there were no distinctions made, and the colonel's widow was hunted for her life. In her grief and peril, the Glynnes received and hid her; Captain Glynne sought and found her husband's body among the slain, saved it for two days, brought the widow a lock of the dead man's hair; but at last, the mob still strictly searching, seems to have abandoned the body, and conveyed his guest on board the *Vengeance.* The Jenkins also had their refugees, the family of an *employé* threatened by a decree. "You should have seen me making a Union Jack to nail over our door," writes Mrs. Jenkin. "I never worked so fast in my life. Monday and Tuesday," she continues, "were

tolerably quiet, our hearts beating fast in the hope of La Marmora's approach, the streets barricaded, and none but foreigners and women allowed to leave the city." On Wednesday, La Marmora came indeed, but in the ugly form of a bombardment; and that evening the Jenkins sat without lights about their drawing-room window, "watching the huge red flashes of the cannon" from the Brigato and La Specula forts, and hearkening, not without some awful pleasure, to the thunder of the cannonade.

Lord Hardwicke intervened between the rebels and La Marmora; and there followed a troubled armistice, filled with the voice of panic. Now the *Vengeance* was known to be cleared for action; now it was rumoured that the galley slaves were to be let loose upon the town, and now that the troops would enter it by storm. Crowds, trusting in the Union Jack over the Jenkins' door, came to beg them to receive their linen and other valuables; nor could their instances be refused; and in the midst of all this bustle and alarm, piles of goods must be examined and long inventories made. At last the captain decided things had gone too far. He himself apparently remained to watch over the linen; but at five o'clock on the Sunday morning, Aunt Anna, Fleeming, and his mother were rowed in a pour of rain on board an English merchantman, to suffer "nine mortal hours of agonising suspense." With the end of that time, peace was restored. On Tuesday morning officers with white flags appeared on the bastions; then, regiment by regiment, the troops marched in, two hundred men sleeping on the ground floor of the Jenkins' house, thirty thousand in all entering the city, but with-

out disturbance, old La Marmora being a commander of a Roman sternness.

With the return of quiet, and the reopening of the universities, we behold a new character, Signor Flaminio: the professors, it appears, made no attempt upon the Jenkin; and thus readily italianised the Fleeming. He came well recommended; for their friend Ruffini was then, or soon after, raised to be the head of the University; and the professors were very kind and attentive, possibly to Ruffini's *protégé*, perhaps also to the first Protestant student. It was no joke for Signor Flaminio at first; certificates had to be got from Paris and from Rector Williams; the classics must be furbished up at home that he might follow Latin lectures; examinations bristled in the path, the entrance examination with Latin and English essay, and oral trials (much softened for the foreigner) in Horace, Tacitus, and Cicero, and the first University examination only three months later, in Italian eloquence, no less, and other wider subjects. On one point the first Protestant student was moved to thank his stars: that there was no Greek required for the degree. Little did he think, as he set down his gratitude, how much, in later life and among cribs and dictionaries, he was to lament this circumstance; nor how much of that later life he was to spend acquiring, with infinite toil, a shadow of what he might then have got with ease and fully. But if his Genoese education was in this particular imperfect, he was fortunate in the branches that more immediately touched on his career. The physical laboratory was the best mounted in Italy. Bancalari, the professor of natural philosophy, was famous in his day; by what

seems even an odd coincidence, he went deeply into electro-magnetism; and it was principally in that subject that Signor Flaminio, questioned in Latin and answering in Italian, passed his Master of Arts degree with first-class honours. That he had secured the notice of his teachers, one circumstance sufficiently proves. A philosophical society was started under the presidency of Mamiani, "one of the examiners and one of the leaders of the Moderate party"; and out of five promising students brought forward by the professors to attend the sittings and present essays, Signor Flaminio was one. I cannot find that he ever read an essay; and indeed I think his hands were otherwise too full. He found his fellow-students "not such a bad set of chaps," and preferred the Piedmontese before the Genoese; but I suspect he mixed not very freely with either. Not only were his days filled with university work, but his spare hours were fully dedicated to the arts under the eye of a beloved task-mistress. He worked hard and well in the art school, where he obtained a silver medal "for a couple of legs the size of life drawn from one of Raphael's cartoons." His holidays were spent in sketching; his evenings, when they were free, at the theatre. Here at the opera he discovered besides a taste for a new art, the art of music; and it was, he wrote, "as if he had found out a heaven on earth." "I am so anxious that whatever he professes to know, he should really perfectly possess," his mother wrote, "that I spare no pains"; neither to him nor to myself, she might have added. And so when he begged to be allowed to learn the piano, she started him with characteristic barbarity on the scales; and heard in conse-

quence "heart-rending groans" and saw "anguished claspings of hands" as he lost his way among their arid intricacies.

In this picture of the lad at the piano, there is something, for the period, girlish. He was indeed his mother's boy; and it was fortunate his mother was not altogether feminine. She gave her son a womanly delicacy in morals, to a man's taste—to his own taste in later life—too finely spun, and perhaps more elegant than healthful. She encouraged him besides in drawing-room interests. But in other points her influence was manlike. Filled with the spirit of thoroughness, she taught him to make of the least of these accomplishments a virile task; and the teaching lasted him through life. Immersed as she was in the day's movements and buzzed about by leading Liberals, she handed on to him her creed in politics: an enduring kindness for Italy, and a loyalty, like that of many clever women, to the Liberal party with but small regard to men or measures. This attitude of mind used often to disappoint me in a man so fond of logic; but I see now how it was learned from the bright eyes of his mother and to the sound of the cannonades of 1848. To some of her defects, besides, she made him heir. Kind as was the bond that united her to her son, kind and even pretty, she was scarce a woman to adorn a home; loving as she did to shine; careless as she was of domestic, studious of public graces. She probably rejoiced to see the boy grow up in somewhat of the image of herself, generous, excessive, enthusiastic, external; catching at ideas, brandishing them when caught; fiery for the right, but always fiery; ready at fifteen to correct a

consul, ready at fifty to explain to any artist his own art.

The defects and advantages of such a training were obvious in Fleeming throughout life. His thoroughness was not that of the patient scholar, but of an untrained woman with fits of passionate study; he had learned too much from dogma, given indeed by cherished lips; and precocious as he was in the use of the tools of the mind, he was truly backward in knowledge of life and of himself. Such as it was at least, his home and school training was now complete; and you are to conceive the lad as being formed in a household of meagre revenue, among foreign surroundings, and under the influence of an imperious drawing-room queen; from whom he learned a great refinement of morals, a strong sense of duty, much forwardness of bearing, all manner of studious and artistic interests, and many ready-made opinions which he embraced with a son's and a disciple's loyalty.

# CHAPTER III

## 1851—1858

Return to England — Fleeming at Fairbairn's — Experience in a Strike — Dr. Bell and Greek Architecture — The Gaskells — Fleeming at Greenwich — The Austins — Fleeming and the Austins — His Engagement — Fleeming and Sir W. Thomson.

In 1851, the year of Aunt Anna's death, the family left Genoa and came to Manchester, where Fleeming was entered in Fairbairn's works as an apprentice. From the palaces and Alps, the Mole, the blue Mediterranean, the humming lanes and the bright theatres of Genoa, he fell—and he was sharply conscious of the fall—to the dim skies and the foul ways of Manchester. England he found on his return "a horrid place," and there is no doubt the family found it a dear one. The story of the Jenkin finances is not easy to follow. The family, I am told, did not practice frugality, only lamented that it should be needful; and Mrs. Jenkin, who was always complaining of "those dreadful bills," was "always a good deal dressed." But at this time of the return to England, things must have gone further. A holiday tour of a fortnight, Fleeming feared would be beyond what he could afford, and he only projected it "to have a castle in the air." And there were actual pinches. Fresh from a warmer sun, he was obliged to

go without a greatcoat, and learned on railway journeys to supply the place of one with wrappings of old newspaper.

From half-past eight till six, he must "file and chip vigorously in a moleskin suit and infernally dirty." The work was not new to him, for he had already passed some time in a Genoese shop; and to Fleeming no work was without interest. Whatever a man can do or know, he longed to know and do also. "I never learned anything," he wrote, "not even standing on my head, but I found a use for it." In the spare hours of his first telegraph voyage, to give an instance of his greed of knowledge, he meant "to learn the whole art of navigation, every rope in the ship and how to handle her on any occasion"; and once when he was shown a young lady's holiday collection of seaweeds, he must cry out, "It showed me my eyes had been idle." Nor was his the case of the mere literary smatterer, content if he but learn the names of things. In him, to do and to do well, was even a dearer ambition than to know. Anything done well, any craft, despatch, or finish, delighted and inspired him. I remember him with a twopenny Japanese box of three drawers, so exactly fitted that, when one was driven home, the others started from their places; the whole spirit of Japan, he told me, was pictured in that box; that plain piece of carpentry was as much inspired by the spirit of perfection as the happiest drawing or the finest bronze; and he who could not enjoy it in the one was not fully able to enjoy it in the others. Thus, too, he found in Leonardo's engineering and anatomical drawings a perpetual feast; and of the former he spoke even with emotion. Nothing

indeed annoyed Fleeming more than the attempt to separate the fine arts from the arts of handicraft; any definition or theory that failed to bring these two together, according to him, had missed the point; and the essence of the pleasure received lay in seeing things well done. Other qualities must be added; he was the last to deny that; but this, of perfect craft, was at the bottom of all. And on the other hand, a nail ill-driven, a joint ill-fitted, a tracing clumsily done, anything to which a man had set his hand and not set it aptly, moved him to shame and anger. With such a character, he would feel but little drudgery at Fairbairn's. There would be something daily to be done, slovenliness to be avoided, and a higher mark of skill to be attained; he would chip and file, as he had practiced scales, impatient of his own imperfection, but resolute to learn.

And there was another spring of delight. For he was now moving daily among those strange creations of man's brain, to some so abhorrent, to him of an interest so inexhaustible: in which iron, water, and fire are made to serve as slaves, now with a tread more powerful than an elephant's, and now with a touch more precise and dainty than a pianist's. The taste for machinery was one that I could never share with him, and he had a certain bitter pity for my weakness. Once when I had proved, for the hundredth time, the depth of this defect, he looked at me askance: "And the best of the joke," said he, "is that he thinks himself quite a poet." For to him the struggle of the engineer against brute forces and with inert allies, was nobly poetic. Habit never dulled in him the sense of the greatness of the aims and obstacles of his profession. Habit only

sharpened his inventor's gusto in contrivance, in triumphant artifice, in the Odyssean subtleties, by which wires are taught to speak, and iron hands to weave, and the slender ship to brave and to outstrip the tempest. To the ignorant the great results alone are admirable; to the knowing, and to Fleeming in particular, rather the infinite device and sleight of hand that made them possible.

A notion was current at the time that, in such a shop as Fairbairn's, a pupil would never be popular unless he drank with the workmen and imitated them in speech and manner. Fleeming, who would do none of these things, they accepted as a friend and companion; and this was the subject of remark in Manchester, where some memory of it lingers till to-day. He thought it one of the advantages of his profession to be brought into a close relation with the working classes; and for the skilled artisan he had a great esteem, liking his company, his virtues, and his taste in some of the arts. But he knew the classes too well to regard them, like a platform speaker, in a lump. He drew, on the other hand, broad distinctions; and it was his profound sense of the difference between one working man and another that led him to devote so much time, in later days, to the furtherance of technical education. In 1852 he had occasion to see both men and masters at their worst, in the excitement of a strike; and very foolishly (after their custom) both would seem to have behaved. Beginning with a fair show of justice on either side, the masters stultified their cause by obstinate impolicy, and the men disgraced their order by acts of outrage. "On Wednesday last," writes Fleeming, "about three thousand

banded round Fairbairn's door at 6 o'clock: men, women, and children, factory boys and girls, the lowest of the low in a very low place. Orders came that no one was to leave the works; but the men inside (Knobsticks as they are called) were precious hungry and thought they would venture. Two of my companions and myself went out with the very first, and had the full benefit of every possible groan and bad language." But the police cleared a lane through the crowd, the pupils were suffered to escape unhurt, and only the Knobsticks followed home and kicked with clogs; so that Fleeming enjoyed, as we may say, for nothing, that fine thrill of expectant valour with which he had sallied forth into the mob. "I never before felt myself so decidedly somebody, instead of nobody," he wrote.

Outside as inside the works, he was "pretty merry and well to do," zealous in study, welcome to many friends, unwearied in loving-kindness to his mother. For some time he spent three nights a week with Dr. Bell, "working away at certain geometrical methods of getting the Greek architectural proportions": a business after Fleeming's heart, for he was never so pleased as when he could marry his two devotions, art and science. This was besides, in all likelihood, the beginning of that love and intimate appreciation of things Greek, from the least to the greatest, from the *Agamemnon* (perhaps his favourite tragedy) down to the details of Grecian tailoring, which he used to express in his familiar phrase: "The Greeks were the boys." Dr. Bell—the son of George Joseph, the nephew of Sir Charles, and though he made less use of it than some, a sharer in the distinguished talents of his race—

had hit upon the singular fact that certain geometrical intersections gave the proportions of the Doric order. Fleeming, under Dr. Bell's direction, applied the same method to the other orders, and again found the proportions accurately given. Numbers of diagrams were prepared; but the discovery was never given to the world, perhaps because of the dissensions that arose between the authors. For Dr. Bell believed that "these intersections were in some way connected with, or symbolical of, the antagonistic forces at work"; but his pupil and helper, with characteristic trenchancy, brushed aside this mysticism, and interpreted the discovery as "a geometrical method of dividing the spaces or (as might be said) of setting out the work, purely empirical and in no way connected with any laws of either force or beauty." "Many a hard and pleasant fight we had over it," wrote Jenkin, in later years; "and impertinent as it may seem, the pupil is still unconvinced by the arguments of the master." I do not know about the antagonistic forces in the Doric order; in Fleeming they were plain enough; and the Bobadil of these affairs with Dr. Bell was still, like the corrector of Italian consuls, "a great child in everything but information." At the house of Colonel Cleather, he might be seen with a family of children; and with these, there was no word of the Greek orders; with these Fleeming was only an uproarious boy and an entertaining draughtsman; so that his coming was the signal for the young people to troop into the playroom, where sometimes the roof rang with romping, and sometimes they gathered quietly about him as he amused them with his pencil.

In another Manchester family, whose name will be

familiar to my readers — that of the Gaskells, Fleeming was a frequent visitor. To Mrs. Gaskell, he would often bring his new ideas, a process that many of his later friends will understand and, in their own cases, remember. With the girls, he had "constant fierce wrangles," forcing them to reason out their thoughts and to explain their prepossessions; and I hear from Miss Gaskell that they used to wonder how he could throw all the ardour of his character into the smallest matters, and to admire his unselfish devotion to his parents. Of one of these wrangles, I have found a record most characteristic of the man. Fleeming had been laying down his doctrine that the end justifies the means, and that it is quite right "to boast of your six men-servants to a burglar or to steal a knife to prevent a murder"; and the Miss Gaskells, with girlish loyalty to what is current, had rejected the heresy with indignation. From such passages-at-arms, many retire mortified and ruffled; but Fleeming had no sooner left the house than he fell into delighted admiration of the spirit of his adversaries. From that it was but a step to ask himself "what truth was sticking in their heads"; for even the falsest form of words (in Fleeming's life-long opinion) reposed upon some truth, just as he could "not even allow that people admire ugly things, they admire what is pretty in the ugly thing." And before he sat down to write his letter, he thought he had hit upon the explanation. "I fancy the true idea," he wrote, "is that you must never do yourself or any one else a moral injury — make any man a thief or a liar — for any end"; quite a different thing, as he would have loved to point out, from never stealing or lying. But this perfervid disputant was not always

out of key with his audience. One whom he met in the same house announced that she would never again be happy. "What does that signify?" cried Fleeming. "We are not here to be happy, but to be good." And the words (as his hearer writes to me) became to her a sort of motto during life.

From Fairbairn's and Manchester, Fleeming passed to a railway survey in Switzerland, and thence again to Mr. Penn's at Greenwich, where he was engaged as draughtsman. There in 1856, we find him in "a terribly busy state, finishing up engines for innumerable gun-boats and steam frigates for the ensuing campaign." From half-past eight in the morning till nine or ten at night, he worked in a crowded office among uncongenial comrades, "saluted by chaff, generally low personal and not witty," pelted with oranges and apples, regaled with dirty stories, and seeking to suit himself with his surroundings or (as he writes) trying to be as little like himself as possible. His lodgings were hard by, "across a dirty green and through some half-built streets of two-storied houses;" he had Carlyle and the poets, engineering and mathematics, to study by himself in such spare time as remained to him; and there were several ladies, young and not so young, with whom he liked to correspond. But not all of these could compensate for the absence of that mother, who had made herself so large a figure in his life, for sorry surroundings, unsuitable society, and work that leaned to the mechanical. "Sunday," says he, "I generally visit some friends in town and seem to swim in clearer water, but the dirty green seems all the dirtier when I get back. Luckily I am fond of my profession, or I

could not stand this life." It is a question in my mind, if he could have long continued to stand it without loss. "We are not here to be happy, but to be good," quoth the young philosopher; but no man had a keener appetite for happiness than Fleeming Jenkin. There is a time of life besides when, apart from circumstances, few men are agreeable to their neighbours and still fewer to themselves; and it was at this stage that Fleeming had arrived, later than common and even worse provided. The letter from which I have quoted is the last of his correspondence with Frank Scott, and his last confidential letter to one of his own sex. "If you consider it rightly," he wrote long after, "you will find the want of correspondence no such strange want in men's friendships. There is, believe me, something noble in the metal which does not rust though not burnished by daily use." It is well said; but the last letter to Frank Scott is scarcely of a noble metal. It is plain the writer has outgrown his old self, yet not made acquaintance with the new. This letter from a busy youth of three and twenty, breathes of seventeen: the sickening alternations of conceit and shame, the expense of hope *in vacuo,* the lack of friends, the longing after love; the whole world of egoism under which youth stands groaning, a voluntary Atlas.

With Fleeming this disease was never seemingly severe. The very day before this (to me) distasteful letter, he had written to Miss Bell of Manchester in a sweeter strain; I do not quote the one, I quote the other; fair things are the best. "I keep my own little lodgings," he writes, "but come up every night to see mamma" (who was then on a visit to London) "if not

kept too late at the works; and have singing lessons once more, and sing '*Donne l'amore è scaltro pargoletto';* and think and talk about you; and listen to mamma's projects *de* Stowting. Everything turns to gold at her touch, she 's a fairy and no mistake. We go on talking till I have a picture in my head, and can hardly believe at the end that the original is Stowting. Even you don't know half how good mamma is; in other things too, which I must not mention. She teaches me how it is not necessary to be very rich to do much good. I begin to understand that mamma would find useful occupation and create beauty at the bottom of a volcano. She has little weaknesses, but is a real generous-hearted woman, which I suppose is the finest thing in the world." Though neither mother nor son could be called beautiful, they make a pretty picture; the ugly, generous, ardent woman weaving rainbow illusions; the ugly, clear-sighted, loving son sitting at her side in one of his rare hours of pleasure, half-beguiled, half-amused, wholly admiring, as he listens. But as he goes home, and the fancy pictures fade, and Stowting is once more burthened with debt, and the noisy companions and the long hours of drudgery once more approach, no wonder if the dirty green seems all the dirtier or if Atlas must resume his load.

But in healthy natures, this time of moral teething passes quickly of itself, and is easily alleviated by fresh interests; and already, in the letter to Frank Scott, there are two words of hope: his friends in London, his love for his profession. The last might have saved him; for he was ere long to pass into a new sphere, where all his

faculties were to be tried and exercised, and his life to be filled with interest and effort. But it was not left to engineering: another and more influential aim was to be set before him. He must, in any case, have fallen in love; in any case, his love would have ruled his life; and the question of choice was, for the descendant of two such families, a thing of paramount importance. Innocent of the world, fiery, generous, devoted as he was, the son of the wild Jacksons and the facile Jenkins might have been led far astray. By one of those partialities that fill men at once with gratitude and wonder, his choosing was directed well. Or are we to say that by a man's choice in marriage, as by a crucial merit, he deserves his fortune? One thing at least reason may discern: that a man but partly chooses, he also partly forms, his helpmate; and he must in part deserve her, or the treasure is but won for a moment to be lost. Fleeming chanced if you will (and indeed all these opportunities are as "random as blind man's buff") upon a wife who was worthy of him; but he had the wit to know it, the courage to wait and labour for his prize, and the tenderness and chivalry that are required to keep such prizes precious. Upon this point he has himself written well, as usual with fervent optimism, but as usual (in his own phrase) with a truth sticking in his head.

"Love," he wrote, "is not an intuition of the person most suitable to us, most required by us; of the person with whom life flowers and bears fruit. If this were so, the chances of our meeting that person would be small indeed; our intuition would often fail; the blindness of love would then be fatal as it is proverbial. No, love works differently, and in its blindness lies its

strength. Man and woman, each strongly desires to be loved, each opens to the other that heart of ideal aspirations which they have often hid till then; each, thus knowing the ideal of the other, tries to fulfil that ideal, each partially succeeds. The greater the love, the greater the success; the nobler the ideal of each, the more durable, the more beautiful the effect. Meanwhile the blindness of each to the other's defects enables the transformation to proceed [unobserved], so that when the veil is withdrawn (if it ever is, and this I do not know) neither knows that any change has occurred in the person whom they loved. Do not fear, therefore. I do not tell you that your friend will not change, but as I am sure that her choice cannot be that of a man with a base ideal, so I am sure the change will be a safe and a good one. Do not fear that anything you love will vanish, he must love it too."

Among other introductions in London, Fleeming had presented a letter from Mrs. Gaskell to the Alfred Austins. This was a family certain to interest a thoughtful young man. Alfred, the youngest and least known of the Austins, had been a beautiful golden-haired child, petted and kept out of the way of both sport and study by a partial mother. Bred an attorney, he had (like both his brothers) changed his way of life, and was called to the bar when past thirty. A Commission of Enquiry into the state of the poor in Dorsetshire gave him an opportunity of proving his true talents; and he was appointed a Poor Law Inspector, first at Worcester, next at Manchester, where he had to deal with the potato famine and the Irish immigration of the 'forties, and finally in London, where he again distinguished

himself during an epidemic of cholera. He was then advanced to the Permanent Secretaryship of Her Majesty's Office of Works and Public Buildings; a position which he filled with perfect competence, but with an extreme of modesty; and on his retirement, in 1868, he was made a Companion of the Bath. While apprentice to a Norwich attorney, Alfred Austin was a frequent visitor in the house of Mr. Barron, a rallying place in those days of intellectual society. Edward Barron, the son of a rich saddler or leather merchant in the Borough, was a man typical of the time. When he was a child, he had once been patted on the head in his father's shop by no less a man than Samuel Johnson, as the Doctor went round the Borough canvassing for Mr. Thrale; and the child was true to this early consecration. "A life of lettered ease spent in provincial retirement," it is thus that the biographer of that remarkable man, William Taylor, announces his subject; and the phrase is equally descriptive of the life of Edward Barron. The pair were close friends: "W. T. and a pipe render everything agreeable," writes Barron in his diary in 1828; and in 1833, after Barron had moved to London and Taylor had tasted the first public failure of his powers, the latter wrote: "To my ever dearest Mr. Barron say, if you please, that I miss him more than I regret him — that I acquiesce in his retirement from Norwich, because I could ill brook his observation of my increasing debility of mind." This chosen companion of William Taylor must himself have been no ordinary man; and he was the friend besides of Borrow, whom I find him helping in his Latin. But he had no desire for popular distinction, lived privately, married a

daughter of Dr. Enfield of Enfield's *Speaker*, and devoted his time to the education of his family, in a deliberate and scholarly fashion, and with certain traits of stoicism, that would surprise a modern. From these children we must single out his youngest daughter, Eliza, who learned under his care to be a sound Latin, an elegant Grecian, and to suppress emotion without outward sign after the manner of the Godwin school. This was the more notable, as the girl really derived from the Enfields; whose high-flown romantic temper I wish I could find space to illustrate. She was but seven years old, when Alfred Austin remarked and fell in love with her; and the union thus early prepared was singularly full. Where the husband and wife differed, and they did so on momentous subjects, they differed with perfect temper and content; and in the conduct of life, and in depth and durability of love, they were at one. Each full of high spirits, each practised something of the same repression: no sharp word was uttered in their house. The same point of honour ruled them; a guest was sacred and stood within the pale from criticism. It was a house, besides, of unusual intellectual tension. Mrs. Austin remembered, in the early days of the marriage, the three brothers, John, Charles, and Alfred, marching to and fro, each with his hands behind his back, and "reasoning high" till morning; and how, like Dr. Johnson, they would cheer their speculations with as many as fifteen cups of tea. And though, before the date of Fleeming's visit, the brothers were separated, Charles long ago retired from the world at Brandeston, and John already near his end in the "rambling old house" at Weybridge, Alfred Austin

and his wife were still a centre of much intellectual society, and still, as indeed they remained until the last, youthfully alert in mind. There was but one child of the marriage, Anne, and she was herself something new for the eyes of the young visitor; brought up, as she had been, like her mother before her, to the standard of a man's acquirements. Only one art had she been denied, she must not learn the violin — the thought was too monstrous even for the Austins; and indeed it would seem as if that tide of reform which we may date from the days of Mary Wollstonecraft had in some degree even receded; for though Miss Austin was suffered to learn Greek, the accomplishment was kept secret like a piece of guilt. But whether this stealth was caused by a backward movement in public thought since the time of Edward Barron, or by the change from enlightened Norwich to barbarian London, I have no means of judging.

When Fleeming presented his letter, he fell in love at first sight with Mrs. Austin and the life and atmosphere of the house. There was in the society of the Austins, outward, stoical conformers to the world, something gravely suggestive of essential eccentricity, something unpretentiously breathing of intellectual effort, that could not fail to hit the fancy of this hot-brained boy. The unbroken enamel of courtesy, the self-restraint, the dignified kindness of these married folk, had besides a particular attraction for their visitor. He could not but compare what he saw, with what he knew of his mother and himself. Whatever virtues Fleeming possessed, he could never count on being civil; whatever brave, true-hearted qualities he was able to admire in

Mrs. Jenkin, mildness of demeanour was not one of them. And here he found persons who were the equals of his mother and himself in intellect and width of interest, and the equals of his father in mild urbanity of disposition. Show Fleeming an active virtue, and he always loved it. He went away from that house struck through with admiration, and vowing to himself that his own married life should be upon that pattern, his wife (whoever she might be) like Eliza Barron, himself such another husband as Alfred Austin. What is more strange, he not only brought away, but left behind him, golden opinions. He must have been — he was, I am told — a trying lad; but there shone out of him such a light of innocent candour, enthusiasm, intelligence, and appreciation, that to persons already some way forward in years, and thus able to enjoy indulgently the perennial comedy of youth, the sight of him was delightful. By a pleasant coincidence, there was one person in the house whom he did not appreciate and who did not appreciate him: Anne Austin, his future wife. His boyish vanity ruffled her; his appearance, never impressive, was then, by reason of obtrusive boyishness, still less so; she found occasion to put him in the wrong by correcting a false quantity; and when Mr. Austin, after doing his visitor the almost unheard-of honour of accompanying him to the door, announced "That was what young men were like in my time" — she could only reply, looking on her handsome father, "I thought they had been better looking."

This first visit to the Austins took place in 1855; and it seems it was some time before Fleeming began to know his mind; and yet longer ere he ventured to show

it. The corrected quantity, to those who knew him well, will seem to have played its part; he was the man always to reflect over a correction and to admire the castigator. And fall in love he did; not hurriedly but step by step, not blindly but with critical discrimination; not in the fashion of Romeo, but before he was done, with all Romeo's ardour and more than Romeo's faith. The high favour to which he presently rose in the esteem of Alfred Austin and his wife, might well give him ambitious notions; but the poverty of the present and the obscurity of the future were there to give him pause; and when his aspirations began to settle round Miss Austin, he tasted, perhaps for the only time in his life, the pangs of diffidence. There was indeed opening before him a wide door of hope. He had changed into the service of Messrs. Liddell & Gordon; these gentlemen had begun to dabble in the new field of marine telegraphy; and Fleeming was already face to face with his life's work. That impotent sense of his own value, as of a ship aground, which makes one of the agonies of youth, began to fall from him. New problems which he was endowed to solve, vistas of new enquiry which he was fitted to explore, opened before him continually. His gifts had found their avenue and goal. And with this pleasure of effective exercise, there must have sprung up at once the hope of what is called by the world success. But from these low beginnings, it was a far look upward to Miss Austin: the favour of the loved one seems always more than problematical to any lover; the consent of parents must be always more than doubtful to a young man with a small salary and no capital except capacity and

hope. But Fleeming was not the lad to lose any good thing for the lack of trial; and at length, in the autumn of 1857, this boyish-sized, boyish-mannered, and superlatively ill-dressed young engineer entered the house of the Austins, with such sinkings as we may fancy, and asked leave to pay his addresses to the daughter. Mrs. Austin already loved him like a son, she was but too glad to give him her consent; Mr. Austin reserved the right to inquire into his character; from neither was there a word about his prospects, by neither was his income mentioned. "Are these people," he wrote, struck with wonder at this dignified disinterestedness, "are these people the same as other people?" It was not till he was armed with this permission, that Miss Austin even suspected the nature of his hopes: so strong, in this unmannerly boy, was the principle of true courtesy; so powerful, in this impetuous nature, the springs of self-repression. And yet a boy he was; a boy in heart and mind; and it was with a boy's chivalry and frankness that he won his wife. His conduct was a model of honour, hardly of tact; to conceal love from the loved one, to court her parents, to be silent and discreet till these are won, and then without preparation to approach the lady — these are not arts that I would recommend for imitation. They lead to final refusal. Nothing saved Fleeming from that fate, but one circumstance that cannot be counted upon — the hearty favour of the mother, and one gift that is inimitable and that never failed him throughout life, the gift of a nature essentially noble and outspoken. A happy and high-minded anger flashed through his despair: it won for him his wife.

Nearly two years passed before it was possible to marry: two years of activity, now in London; now at Birkenhead, fitting out ships, inventing new machinery for new purposes, and dipping into electrical experiment; now in the *Elba* on his first telegraph cruise between Sardinia and Algiers: a busy and delightful period of bounding ardour, incessant toil, growing hope and fresh interests, with behind and through all, the image of his beloved. A few extracts from his correspondence with his betrothed will give the note of these truly joyous years. "My profession gives me all the excitement and interest I ever hope for, but the sorry jade is obviously jealous of you." — "'Poor Fleeming,' in spite of wet, cold and wind, clambering over moist, tarry slips, wandering among pools of slush in waste places inhabited by wandering locomotives, grows visibly stronger, has dismissed his office cough and cured his toothache."—"The whole of the paying out and lifting machinery must be designed and ordered in two or three days, and I am half crazy with work. I like it though: it's like a good ball, the excitement carries you through." — "I was running to and from the ships and warehouse through fierce gusts of rain and wind till near eleven, and you cannot think what a pleasure it was to be blown about and think of you in your pretty dress." — "I am at the works till ten and sometimes till eleven. But I have a nice office to sit in, with a fire to myself, and bright brass scientific instruments all around me, and books to read, and experiments to make, and enjoy myself amazingly. I find the study of electricity so entertaining that I am apt to neglect my other work." And for a last taste,— "Yesterday I had some charming

electrical experiments. What shall I compare them to — a new song? a Greek play?"

It was at this time besides that he made the acquaintance of Professor, now Sir William, Thomson. To describe the part played by these two in each other's lives would lie out of my way. They worked together on the Committee on Electrical Standards; they served together at the laying down or the repair of many deep-sea cables; and Sir William was regarded by Fleeming, not only with the "worship" (the word is his own) due to great scientific gifts, but with an ardour of personal friendship not frequently excelled. To their association, Fleeming brought the valuable element of a practical understanding; but he never thought or spoke of himself where Sir William was in question; and I recall, quite in his last days, a singular instance of this modest loyalty to one whom he admired and loved. He drew up a paper, in a quite personal interest, of his own services; yet even here he must step out of his way, he must add, where it had no claim to be added, his opinion that, in their joint work, the contributions of Sir William had been always greatly the most valuable. Again, I shall not readily forget with what emotion he once told me an incident of their associated travels. On one of the mountain ledges of Madeira, Fleeming's pony bolted between Sir William and the precipice above; by strange good fortune and thanks to the steadiness of Sir William's horse, no harm was done; but for the moment, Fleeming saw his friend hurled into the sea, and almost by his own act: it was a memory that haunted him.

## CHAPTER IV

### 1859 — 1868

Fleeming's Marriage — His Married Life — Professional Difficulties — Life at Claygate — Illness of Mrs. F. Jenkin; and of Fleeming — Appointment to the Chair at Edinburgh.

On Saturday, Feb. 26, 1859, profiting by a holiday of four days, Fleeming was married to Miss Austin at Northiam: a place connected not only with his own family but with that of his bride as well. By Tuesday morning, he was at work again, fitting out cableships at Birkenhead. Of the walk from his lodgings to the works, I find a graphic sketch in one of his letters: "Out over the railway bridge, along a wide road raised to the level of a ground floor above the land, which, not being built upon, harbours puddles, ponds, pigs, and Irish hovels; — so to the dock warehouses, four huge piles of building with no windows, surrounded by a wall about twelve feet high; — in through the large gates, round which hang twenty or thirty rusty Irish, playing pitch and toss and waiting for employment; — on along the railway, which came in at the same gates and which branches down between each vast block — past a pilot-engine butting refractory trucks into their places — on to the last block, [and] down the branch, sniffing the guano-scented air and detecting the old

bones. The hartshorn flavour of the guano becomes very strong, as I near the docks where, across the *Elba's* decks, a huge vessel is discharging her cargo of the brown dust, and where huge vessels have been discharging that same cargo for the last five months." This was the walk he took his young wife on the morrow of his return. She had been used to the society of lawyers and civil servants, moving in that circle which seems to itself the pivot of the nation and is in truth only a clique like another; and Fleeming was to her the nameless assistant of a nameless firm of engineers, doing his inglorious business, as she now saw for herself, among unsavoury surroundings. But when their walk brought them within view of the river, she beheld a sight to her of the most novel beauty: four great, sea-going ships dressed out with flags. "How lovely!" she cried. "What is it for?"—"For you," said Fleeming. Her surprise was only equalled by her pleasure. But perhaps, for what we may call private fame, there is no life like that of the engineer; who is a great man in out-of-the-way places, by the dockside or on the desert island or in populous ships, and remains quite unheard of in the coteries of London. And Fleeming had already made his mark among the few who had an opportunity of knowing him.

His marriage was the one decisive incident of his career; from that moment until the day of his death, he had one thought to which all the rest were tributary, the thought of his wife. No one could know him even slightly, and not remark the absorbing greatness of that sentiment; nor can any picture of the man be drawn that does not in proportion dwell upon it. This is a

delicate task; but if we are to leave behind us (as we wish) some presentment of the friend we have lost, it is a task that must be undertaken.

For all his play of mind and fancy, for all his indulgence — and, as time went on, he grew indulgent — Fleeming had views of duty that were even stern. He was too shrewd a student of his fellow-men to remain long content with rigid formulæ of conduct. Iron-bound, impersonal ethics, the procrustean bed of rules, he soon saw at their true value as the deification of averages. "As to Miss (I declare I forget her name) being bad," I find him writing, "people only mean that she has broken the Decalogue — which is not at all the same thing. People who have kept in the high-road of Life really have less opportunity for taking a comprehensive view of it than those who have leaped over the hedges and strayed up the hills; not but what the hedges are very necessary, and our stray travellers often have a weary time of it. So, you may say, have those in the dusty roads." Yet he was himself a very stern respecter of the hedgerows; sought safety and found dignity in the obvious path of conduct; and would palter with no simple and recognised duty of his epoch. Of marriage in particular, of the bond so formed, of the obligations incurred, of the debt men owe to their children, he conceived in a truly antique spirit: not to blame others, but to constrain himself. It was not to blame, I repeat, that he held these views; for others, he could make a large allowance; and yet he tacitly expected of his friends and his wife a high standard of behaviour. Nor was it always easy to wear the armour of that ideal.

Acting upon these beliefs; conceiving that he had indeed "given himself" (in the full meaning of these words) for better, for worse; painfully alive to his defects of temper and deficiency in charm; resolute to make up for these; thinking last of himself: Fleeming was in some ways the very man to have made a noble, uphill fight of an unfortunate marriage. In other ways, it is true, he was one of the most unfit for such a trial. And it was his beautiful destiny to remain to the last hour the same absolute and romantic lover, who had shown to his new bride the flag-draped vessels in the Mersey. No fate is altogether easy; but trials are our touchstone, trials overcome our reward; and it was given to Fleeming to conquer. It was given to him to live for another, not as a task, but till the end as an enchanting pleasure. "People may write novels," he wrote in 1869, "and other people may write poems, but not a man or woman among them can write to say how happy a man may be, who is desperately in love with his wife after ten years of marriage." And again in 1885, after more than twenty-six years of marriage, and within but five weeks of his death: "Your first letter from Bournemouth," he wrote, "gives me heavenly pleasure — for which I thank Heaven and you too — who are my heaven on earth." The mind hesitates whether to say that such a man has been more good or more fortunate.

Any woman (it is the defect of her sex) comes sooner to the stable mind of maturity than any man; and Jenkin was to the end of a most deliberate growth. In the next chapter, when I come to deal with his telegraphic voyages and give some taste of his correspondence, the

reader will still find him at twenty-five an arrant schoolboy. His wife besides was more thoroughly educated than he. In many ways she was able to teach him, and he proud to be taught; in many ways she outshone him, and he delighted to be outshone. All these superiorities, and others that, after the manner of lovers, he no doubt forged for himself, added as time went on to the humility of his original love. Only once, in all I know of his career, did he show a touch of smallness. He could not learn to sing correctly; his wife told him so and desisted from her lessons; and the mortification was so sharply felt that for years he could not be induced to go to a concert, instanced himself as a typical man without an ear, and never sang again. I tell it; for the fact that this stood singular in his behaviour, and really amazed all who knew him, is the happiest way I can imagine to commend the tenor of his simplicity; and because it illustrates his feeling for his wife. Others were always welcome to laugh at him; if it amused them, or if it amused him, he would proceed undisturbed with his occupation, his vanity invulnerable. With his wife it was different: his wife had laughed at his singing; and for twenty years the fibre ached. Nothing, again, was more notable than the formal chivalry of this unmannered man to the person on earth with whom he was the most familiar. He was conscious of his own innate and often rasping vivacity and roughness; and he was never forgetful of his first visit to the Austins and the vow he had registered on his return. There was thus an artificial element in his punctilio that at times might almost raise a smile. But it stood on noble grounds; for this was how he sought to shelter from his

own petulance the woman who was to him the symbol of the household and to the end the beloved of his youth.

I wish in this chapter to chronicle small beer; taking a hasty glance at some ten years of married life and of professional struggle; and reserving till the next all the more interesting matter of his cruises. Of his achievements and their worth, it is not for me to speak: his friend and partner, Sir William Thomson, has contributed a note on the subject, which will be found in the Appendix, and to which I must refer the reader. He is to conceive in the meanwhile for himself Fleeming's manifold engagements: his service on the Committee on Electrical Standards, his lectures on electricity at Chatham, his chair at the London University, his partnership with Sir William Thomson and Mr. Varley in many ingenious patents, his growing credit with engineers and men of science; and he is to bear in mind that of all this activity and acquist of reputation, the immediate profit was scanty. Soon after his marriage, Fleeming had left the service of Messrs. Liddell & Gordon, and entered into a general engineering partnership with Mr. Forde, a gentleman in a good way of business. It was a fortunate partnership in this, that the parties retained their mutual respect unlessened and separated with regret; but men's affairs, like men, have their times of sickness, and by one of these unaccountable variations, for hard upon ten years the business was disappointing and the profits meagre. "Inditing drafts of German railways which will never get made": it is thus I find Fleeming, not without a touch of bitterness, describe his occupation. Even the patents hung fire at first. There was no salary to rely on; children

were coming and growing up; the prospect was often anxious. In the days of his courtship, Fleeming had written to Miss Austin a dissuasive picture of the trials of poverty, assuring her these were no figments but truly bitter to support: he told her this, he wrote, beforehand, so that when the pinch came and she suffered, she should not be disappointed in herself nor tempted to doubt her own magnanimity: a letter of admirable wisdom and solicitude. But now that the trouble came, he bore it very lightly. It was his principle, as he once prettily expressed it, "to enjoy each day's happiness, as it arises, like birds or children." His optimism, if driven out at the door, would come in again by the window; if it found nothing but blackness in the present, would hit upon some ground of consolation in the future or the past. And his courage and energy were indefatigable. In the year 1863, soon after the birth of their first son, they moved into a cottage at Claygate near Esher; and about this time, under manifold troubles both of money and health, I find him writing from abroad: "The country will give us, please God, health and strength. I will love and cherish you more than ever, you shall go where you wish, you shall receive whom you wish — and as for money you shall have that too. I cannot be mistaken. I have now measured myself with many men. I do not feel weak, I do not feel that I shall fail. In many things I have succeeded, and I will in this. And meanwhile the time of waiting, which, please Heaven, shall not be long, shall also not be so bitter. Well, well, I promise much, and do not know at this moment how you and the dear child are. If he is but better, courage, my girl, for I see light."

This cottage at Claygate stood just without the village, well surrounded with trees and commanding a pleasant view. A piece of the garden was turfed over to form a croquet green, and Fleeming became ( I need scarce say) a very ardent player. He grew ardent, too, in gardening. This he took up at first to please his wife, having no natural inclination; but he had no sooner set his hand to it, than, like everything else he touched, it became with him a passion. He budded roses, he potted cuttings in the coach-house; if there came a change of weather at night, he would rise out of bed to protect his favourites; when he was thrown with a dull companion, it was enough for him to discover in the man a fellow gardener; on his travels, he would go out of his way to visit nurseries and gather hints; and to the end of his life, after other occupations prevented him putting his own hand to the spade, he drew up a yearly programme for his gardener, in which all details were regulated. He had begun by this time to write. His paper on Darwin, which had the merit of convincing on one point the philosopher himself, had indeed been written before this in London lodgings; but his pen was not idle at Claygate; and it was here he wrote (among other things) that review of "*Fecundity, Fertility, Sterility, and Allied Topics,*" which Dr. Matthews Duncan prefixed by way of introduction to the second edition of the work. The mere act of writing seems to cheer the vanity of the most incompetent; but a correction accepted by Darwin, and a whole review borrowed and reprinted by Matthews Duncan, are compliments of a rare strain, and to a man still unsuccessful must have been precious indeed.

There was yet a third of the same kind in store for him; and when Munro himself owned that he had found instruction in the paper on Lucretius, we may say that Fleeming had been crowned in the capitol of reviewing.

Croquet, charades, Christmas magic lanterns for the village children, an amateur concert or a review article in the evening; plenty of hard work by day; regular visits to meetings of the British Association, from one of which I find him characteristically writing: "I cannot say that I have had any amusement yet, but I am enjoying the dulness and dry bustle of the whole thing;" occasional visits abroad on business, when he would find the time to glean (as I have said) gardening hints for himself, and old folk-songs or new fashions of dress for his wife; and the continual study and care of his children: these were the chief elements of his life. Nor were friends wanting. Captain and Mrs. Jenkin, Mr. and Mrs. Austin, Clerk Maxwell, Miss Bell of Manchester, and others came to them on visits. Mr. Hertslet of the Foreign Office, his wife and his daughter, were neighbours and proved kind friends; in 1867 the Howitts came to Claygate and sought the society of "the two bright, clever young people;"[1] and in a house close by, Mr. Frederick Ricketts came to live with his family. Mr. Ricketts was a valued friend during his short life; and when he was lost with every circumstance of heroism in the *La Plata,* Fleeming mourned him sincerely.

I think I shall give the best idea of Fleeming in this time of his early married life, by a few sustained ex-

[1] *Reminiscences of My Later Life,* by Mary Howitt. *Good Words,* May, 1886.

tracts from his letters to his wife, while she was absent on a visit in 1864.

"*Nov.* 11.—Sunday was too wet to walk to Isleworth, for which I was sorry, so I staid and went to Church and thought of you at Ardwick all through the Commandments, and heard Dr. —— expound in a remarkable way a prophecy of St. Paul's about Roman Catholics, which *mutatis mutandis* would do very well for Protestants in some parts. Then I made a little nursery of Borecole and Enfield market cabbage, grubbing in wet earth with leggings and gray coat on. Then I tidied up the coach-house to my own and Christine's admiration. Then encouraged by *bouts-rimés* I wrote you a copy of verses; high time I think; I shall just save my tenth year of knowing my lady-love without inditing poetry or rhymes to her.

"Then I rummaged over the box with my father's letters and found interesting notes from myself. One I should say my first letter, which little Austin I should say would rejoice to see and shall see—with a drawing of a cottage and a spirited 'cob.' What was more to the purpose, I found with it a paste-cutter which Mary begged humbly for Christine and I generously gave this morning.

"Then I read some of Congreve. There are admirable scenes in the manner of Sheridan; all wit and no character, or rather one character in a great variety of situations and scenes. I could show you some scenes, but others are too coarse even for my stomach hardened by a course of French novels.

"All things look so happy for the rain.

"*Nov.* 16.—Verbenas looking well. . . . I am but

a poor creature without you; I have naturally no spirit or fun or enterprise in me. Only a kind of mechanical capacity for ascertaining whether two really is half four, etc.; but when you are near me I can fancy that I too shine, and vainly suppose it to be my proper light; whereas by my extreme darkness when you are not by, it clearly can only be by a reflected brilliance that I seem aught but dull. Then for the moral part of me: if it were not for you and little Odden, I should feel by no means sure that I had any affection power in me. . . . Even the muscular me suffers a sad deterioration in your absence. I don't get up when I ought to, I have snoozed in my chair after dinner; I do not go in at the garden with my wonted vigour, and feel ten times as tired as usual with a walk in your absence; so you see, when you are not by, I am a person without ability, affections or vigour, but droop dull, selfish, and spiritless; can you wonder that I love you?

"*Nov.* 17.—. . . I am very glad we married young. I would not have missed these five years, no, not for any hopes; they are my own.

"*Nov.* 30.—I got through my Chatham lecture very fairly though almost all my apparatus went astray. I dined at the mess, and got home to Isleworth the same evening; your father very kindly sitting up for me.

"*Dec.* 1.—Back at dear Claygate. Many cuttings flourish, especially those which do honour to your hand. Your Californian annuals are up and about. Badger is fat, the grass green. . . .

"*Dec.* 3.—Odden will not talk of you, while you are away, having inherited, as I suspect, his father's way of declining to consider a subject which is painful, as your

absence is. . . . I certainly should like to learn Greek and I think it would be a capital pastime for the long winter evenings. . . . How things are misrated! I declare croquet is a noble occupation compared to the pursuits of business men. As for so-called idleness — that is, one form of it — I vow it is the noblest aim of man. When idle, one can love, one can be good, feel kindly to all, devote oneself to others, be thankful for existence, educate one's mind, one's heart, one's body. When busy, as I am busy now or have been busy to-day, one feels just as you sometimes felt when you were too busy, owing to want of servants.

"*Dec.* 5.— On Sunday I was at Isleworth, chiefly engaged in playing with Odden. We had the most enchanting walk together through the brickfields. It was very muddy, and, as he remarked, not fit for Nanna, but fit for us *men*. The dreary waste of bared earth, thatched sheds and standing water, was a paradise to him; and when we walked up planks to deserted mixing and crushing mills, and actually saw where the clay was stirred with long iron prongs, and chalk or lime ground with 'a tind of a mill,' his expression of contentment and triumphant heroism knew no limit to its beauty. Of course on returning I found Mrs. Austin looking out at the door in an anxious manner, and thinking we had been out quite long enough. . . . I am reading Don Quixote chiefly and am his fervent admirer, but I am so sorry he did not place his affections on a Dulcinea of somewhat worthier stamp. In fact I think there must be a mistake about it. Don Quixote might and would serve his lady in most preposterous fashion, but I am sure he would have chosen a lady of

merit. He imagined her to be such no doubt, and drew a charming picture of her occupations by the banks of the river; but in his other imaginations there was some kind of peg on which to hang the false costumes he created; windmills are big, and wave their arms like giants; sheep in the distance are somewhat like an army; a little boat on the river-side must look much the same whether enchanted or belonging to millers; but except that Dulcinea is a woman, she bears no resemblance at all to the damsel of his imagination."

At the time of these letters, the oldest son only was born to them. In September of the next year, with the birth of the second, Charles Frewen, there befell Fleeming a terrible alarm and what proved to be a lifelong misfortune. Mrs. Jenkin was taken suddenly and alarmingly ill; Fleeming ran a matter of two miles to fetch the doctor, and drenched with sweat as he was, returned with him at once in an open gig. On their arrival at the house, Mrs. Jenkin half unconsciously took and kept hold of her husband's hand. By the doctor's orders, windows and doors were set open to create a thorough draught, and the patient was on no account to be disturbed. Thus, then, did Fleeming pass the whole of that night, crouching on the floor in the draught, and not daring to move lest he should wake the sleeper. He had never been strong; energy had stood him instead of vigour; and the result of that night's exposure was flying rheumatism varied by settled sciatica. Sometimes it quite disabled him, sometimes it was less acute; but he was rarely free from it until his death. I knew him for many years; for more than ten we were closely intimate; I have lived with him for weeks; and

during all this time, he only once referred to his infirmity and then perforce as an excuse for some trouble he put me to, and so slightly worded that I paid no heed. This is a good measure of his courage under sufferings of which none but the untried will think lightly. And I think it worth noting how this optimist was acquainted with pain. It will seem strange only to the superficial. The disease of pessimism springs never from real troubles, which it braces men to bear, which it delights men to bear well. Nor does it readily spring at all, in minds that have conceived of life as a field of ordered duties, not as a chase in which to hunt for gratifications. "We are not here to be happy, but to be good"; I wish he had mended the phrase: "We are not here to be happy, but to try to be good," comes nearer the modesty of truth. With such old-fashioned morality, it is possible to get through life, and see the worst of it, and feel some of the worst of it, and still acquiesce piously and even gladly in man's fate. Feel some of the worst of it, I say; for some of the rest of the worst is, by this simple faith, excluded.

It was in the year 1868, that the clouds finally rose. The business in partnership with Mr. Forde began suddenly to pay well; about the same time the patents showed themselves a valuable property; and but a little after, Fleeming was appointed to the new chair of engineering in the University of Edinburgh. Thus, almost at once, pecuniary embarrassments passed for ever out of his life. Here is his own epilogue to the time at Claygate, and his anticipations of the future in Edinburgh.

". . . . The dear old house at Claygate is not let

and the pretty garden a mass of weeds. I feel rather as if we had behaved unkindly to them. We were very happy there, but now that it is over I am conscious of the weight of anxiety as to money which I bore all the time. With you in the garden, with Austin in the coach-house, with pretty songs in the little, low white room, with the moonlight in the dear room up-stairs, ah, it was perfect; but the long walk, wondering, pondering, fearing, scheming, and the dusty jolting railway, and the horrid fusty office with its endless disappointments, they are well gone. It is well enough to fight and scheme and bustle about in the eager crowd here [in London] for a while now and then, but not for a lifetime. What I have now is just perfect. Study for winter, action for summer, lovely country for recreation, a pleasant town for talk. . . . ."

## CHAPTER V

### 1858—1873

#### Notes of Telegraph Voyages.

But it is now time to see Jenkin at his life's work. I have before me certain imperfect series of letters written, as he says, "at hazard, for one does not know at the time what is important and what is not": the earlier addressed to Miss Austin, after the betrothal; the later to Mrs. Jenkin the young wife. I should premise that I have allowed myself certain editorial freedoms, leaving out and splicing together much as he himself did with the Bona cable: thus edited the letters speak for themselves, and will fail to interest none who love adventure or activity. Addressed as they were to her whom he called his "dear engineering pupil," they give a picture of his work so clear that a child may understand, and so attractive that I am half afraid their publication may prove harmful, and still further crowd the ranks of a profession already overcrowded. But their most engaging quality is the picture of the writer; with his indomitable self-confidence and courage, his readiness in every pinch of circumstance or change of plan, and his ever fresh enjoyment of the whole web of human experience, nature, adventure, science, toil and rest, society and solitude. It should be borne in mind that the writer of these buoyant pages was, even while he wrote,

harassed by responsibility, stinted in sleep, and often struggling with the prostration of sea-sickness. To this last enemy, which he never overcame, I have omitted, in my search after condensation, a good many references; if they were all left, such was the man's temper, they would not represent one hundredth part of what he suffered, for he was never given to complaint. But indeed he had met this ugly trifle, as he met every thwart circumstance of life, with a certain pleasure of pugnacity; and suffered it not to check him, whether in the exercise of his profession or the pursuit of amusement.

## I

"Birkenhead: *April* 18, 1858.

"Well, you should know, Mr. ——, having a contract to lay down a submarine telegraph from Sardinia to Africa, failed three times in the attempt. The distance from land to land is about 140 miles. On the first occasion, after proceeding some 70 miles, he had to cut the cable — the cause I forget: he tried again, same result; then picked up about 20 miles of the lost cable, spliced on a new piece, and very nearly got across that time, but ran short of cable, and when but a few miles off Galita in very deep water, had to telegraph to London for more cable to be manufactured and sent out whilst he tried to stick to the end: for five days, I think, he lay there sending and receiving messages, but heavy weather coming on the cable parted and Mr.—— went home in despair — at least I should think so.

"He then applied to those eminent engineers, R. S. Newall & Co., who made and laid down a cable for him

last autumn — Fleeming Jenkin (at the time in considerable mental agitation) having the honour of fitting out the *Elba* for that purpose." [On this occasion, the *Elba* has no cable to lay; but] "is going out in the beginning of May to endeavour to fish up the cables Mr.—— lost. There are two ends at or near the shore: the third will probably not be found within 20 miles from land. One of these ends will be passed over a very big pulley or sheave at the bows, passed six times round a big barrel or drum; which will be turned round by a steam engine on deck, and thus wind up the cable, while the *Elba* slowly steams ahead. The cable is not wound round and round the drum as your silk is wound on its reel, but on the contrary never goes round more than six times, going off at one side as it comes on at the other, and going down into the hold of the *Elba* to be coiled along in a big coil or skein.

"I went down to Gateshead to discuss with Mr. Newall the form which this tolerably simple idea should take, and have been busy since I came here drawing, ordering, and putting up the machinery — uninterfered with, thank goodness, by any one. I own I like responsibility; it flatters one, and then, your father might say, I have more to gain than to lose. Moreover I do like this bloodless, painless combat with wood and iron, forcing the stubborn rascals to do my will, licking the clumsy cubs into an active shape, seeing the child of to-day's thought working to-morrow in full vigour at his appointed task.

"*May* 12.

"By dint of bribing, bullying, cajoling, and going day by day to see the state of things ordered, all my

work is very nearly ready now; but those who have neglected these precautions are of course disappointed. Five hundred fathoms of chain [were] ordered by —— some three weeks since, to be ready by the 10th without fail; he sends for it to-day—150 fathoms all they can let us have by the 15th—and how the rest is to be got, who knows? He ordered a boat a month since and yesterday we could see nothing of her but the keel and about two planks. I could multiply instances without end. At first one goes nearly mad with vexation at these things; but one finds so soon that they are the rule, that then it becomes necessary to feign a rage one does not feel. I look upon it as the natural order of things, that if I order a thing, it will not be done—if by accident it gets done, it will certainly be done wrong: the only remedy being to watch the performance at every stage.

"To-day was a grand field-day. I had steam up and tried the engine against pressure or resistance. One part of the machinery is driven by a belt or strap of leather. I always had my doubts this might slip; and so it did, wildly. I had made provision for doubling it, putting on two belts instead of one. No use—off they went, slipping round and off the pulleys instead of driving the machinery. Tighten them—no use. More strength there—down with the lever—smash something, tear the belts, but get them tight—now then, stand clear, on with the steam;—and the belts slip away as if nothing held them. Men begin to look queer; the circle of quidnuncs make sage remarks. Once more—no use. I begin to know I ought to feel sheepish and beat, but somehow I feel cocky instead.

I laugh and say, 'Well, I am bound to break something down'—and suddenly see. 'Oho, there's the place; get weight on there, and the belt won't slip.' With much labour, on go the belts again. 'Now then, a spar thro' there and six men's weight on; mind you're not carried away.'—'Ay, ay, sir.' But evidently no one believes in the plan. 'Hurrah, round she goes—stick to your spar. All right, shut off steam.' And the difficulty is vanquished.

"This or such as this (not always quite so bad) occurs hour after hour, while five hundred tons of coal are rattling down into the holds and bunkers, riveters are making their infernal row all round, and riggers bend the sails and fit the rigging:—a sort of Pandemonium, it appeared to young Mrs. Newall, who was here on Monday and half-choked with guano; but it suits the likes o' me.

"S. S. *Elba,* River Mersey: *May* 17.

"We are delayed in the river by some of the ship's papers not being ready. Such a scene at the dock gates. Not a sailor will join till the last moment; and then, just as the ship forges ahead through the narrow pass, beds and baggage fly on board, the men half tipsy clutch at the rigging, the captain swears, the women scream and sob, the crowd cheer and laugh, while one or two pretty little girls stand still and cry outright, regardless of all eyes.

"These two days of comparative peace have quite set me on my legs again. I was getting worn and weary with anxiety and work. As usual I have been delighted with my shipwrights. I gave them some

beer on Saturday, making a short oration. To-day when they went ashore and I came on board, they gave three cheers, whether for me or the ship I hardly know, but I had just bid them good-bye, and the ship was out of hail; but I was startled and hardly liked to claim the compliment by acknowledging it.

"S.S. *Elba: May* 25.

"My first intentions of a long journal have been fairly frustrated by sea-sickness. On Tuesday last about noon we started from the Mersey in very dirty weather, and were hardly out of the river when we met a gale from the southwest and a heavy sea, both right in our teeth; and the poor *Elba* had a sad shaking. Had I not been very sea-sick, the sight would have been exciting enough, as I sat wrapped in my oilskins on the bridge; [but] in spite of all my efforts to talk, to eat, and to grin, I soon collapsed into imbecility; and I was heartily thankful towards evening to find myself in bed.

"Next morning, I fancied it grew quieter and, as I listened, heard, 'Let go the anchor,' whereon I concluded we had run into Holyhead Harbour, as was indeed the case. All that day we lay in Holyhead, but I could neither read nor write nor draw. The captain of another steamer which had put in came on board, and we all went for a walk on the hill; and in the evening there was an exchange of presents. We gave some tobacco I think, and received a cat, two pounds of fresh butter, a Cumberland ham, *Westward Ho!* and Thackeray's *English Humorists.* I was astonished at receiving two such fair books from the captain of a little coasting

screw. Our captain said he [the captain of the screw] had plenty of money, five or six hundred a year at least.—'What in the world makes him go rolling about in such a craft, then?'—'Why, I fancy he's reckless; he's desperate in love with that girl I mentioned, and she won't look at him.' Our honest, fat, old captain says this very grimly in his thick, broad voice.

"My head won't stand much writing yet, so I will run up and take a look at the blue night sky off the coast of Portugal.

*"May 26.*

"A nice lad of some two and twenty, A—— by name, goes out in a nondescript capacity as part purser, part telegraph clerk, part generally useful person. A—— was a great comfort during the miseries [of the gale]; for when with a dead head wind and a heavy sea, plates, books, papers, stomachs were being rolled about in sad confusion, we generally managed to lie on our backs, and grin, and try discordant staves of the *Flowers of the Forest* and the *Low-backed Car*. We could sing and laugh, when we could do nothing else; though A—— was ready to swear after each fit was past, that that was the first time he had felt anything, and at this moment would declare in broad Scotch that he'd never been sick at all, qualifying the oath with 'except for a minute now and then.' He brought a cornet-à-piston to practise on, having had three weeks' instruction on that melodious instrument; and if you could hear the horrid sounds that come! especially at heavy rolls. When I hint he is not improving, there comes a con-

fession: 'I don't feel quite right yet, you see!' But he blows away manfully, and in self-defence I try to roar the tune louder.

11:30 P. M.

"Long past Cape St. Vincent now. We went within about 400 yards of the cliffs and lighthouse in a calm moonlight, with porpoises springing from the sea, the men crooning long ballads as they lay idle on the forecastle, and the sails flapping uncertain on the yards. As we passed, there came a sudden breeze from land, hot and heavy scented; and now as I write its warm rich flavour contrasts strongly with the salt air we have been breathing.

"I paced the deck with H——, the second mate, and in the quiet night drew a confession that he was engaged to be married, and gave him a world of good advice. He is a very nice, active, little fellow, with a broad Scotch tongue and 'dirty, little rascal' appearance. He had a sad disappointment at starting. Having been second mate on the last voyage, when the first mate was discharged, he took charge of the *Elba* all the time she was in port, and of course looked forward to being chief mate this trip. Liddell promised him the post. He had not authority to do this; and when Newall heard of it, he appointed another man. Fancy poor H—— having told all the men and most of all, his sweetheart! But more remains behind; for when it came to signing articles, it turned out that O——, the new first mate, had not a certificate which allowed him to have a second mate. Then came rather an affecting scene. For H—— proposed to sign as chief (he having

the necessary higher certificate) but to act as second for the lower wages. At first O—— would not give in, but offered to go as second. But our brave little H—— said, no: 'The owners wished Mr. O—— to be chief mate, and chief mate he should be.' So he carried the day, signed as chief and acts as second. Shakespeare and Byron are his favourite books. I walked into Byron a little, but can well understand his stirring up a rough, young sailor's romance. I lent him *Westward Ho!* from the cabin; but to my astonishment he did not care much for it; he said it smelt of the shilling railway library; perhaps I had praised it too highly. Scott is his standard for novels. I am very happy to find good taste by no means confined to gentlemen, H—— having no pretensions to that title. He is a man after my own heart.

"Then I came down to the cabin and heard young A——'s schemes for the future. His highest picture is a commission in the Prince of Vizianagram's irregular horse. His eldest brother is tutor to his Highness's children, and grand vizier, and magistrate, and on his Highness's household staff, and seems to be one of those Scotch adventurers one meets with and hears of in queer berths—raising cavalry, building palaces, and using some petty Eastern king's long purse with their long Scotch heads.

"Off Bona: *June* 4.

"I read your letter carefully, leaning back in a Maltese boat to present the smallest surface of my body to a grilling sun, and sailing from the *Elba* to Cape Hamrah, about three miles distant. How we fried and

sighed! At last, we reached land under Fort Genova, and I was carried ashore pick-a-back, and plucked the first flower I saw for Annie. It was a strange scene, far more novel than I had imagined: the high, steep banks covered with rich, spicy vegetation of which I hardly knew one plant. The dwarf palm with fan-like leaves, growing about two feet high, formed the staple of the verdure. As we brushed through them, the gummy leaves of a cistus stuck to the clothes; and with its small white flower and yellow heart, stood for our English dog-rose. In place of heather, we had myrtle and lentisque with leaves somewhat similar. That large bulb with long flat leaves? Do not touch it if your hands are cut; the Arabs use it as blisters for their horses. Is that the same sort? No, take that one up; it is the bulb of a dwarf palm, each layer of the onion peels off, brown and netted, like the outside of a cocoa-nut. It is a clever plant that; from the leaves we get a vegetable horsehair:—and eat the bottom of the centre spike. All the leaves you pull have the same aromatic scent. But here a little patch of cleared ground shows old friends, who seem to cling by abused civilization:—fine, hardy thistles, one of them bright yellow, though;—honest, Scotch-looking, large daisies or gowans;—potatoes here and there, looking but sickly; and dark sturdy fig-trees looking cool and at their ease in the burning sun.

"Here we are at Fort Genova, crowning the little point, a small old building, due to my old Genoese acquaintance who fought and traded bravely once upon a time. A broken cannon of theirs forms the threshold: and through a dark, low arch, we enter upon broad

terraces sloping to the centre, from which rain water may collect and run into that well. Large-breeched French troopers lounge about and are most civil; and the whole party sit down to breakfast in a little white-washed room, from the door of which the long mountain coastline and the sparkling sea show of an impossible blue through the openings of a white-washed rampart. I try a sea-egg, one of those prickly fellows —sea-urchins they are called sometimes; the shell is of a lovely purple, and when opened, there are rays of yellow adhering to the inside; these I eat, but they are very fishy.

"We are silent and shy of one another, and soon go out to watch while turbaned, blue-breeched, barelegged Arabs dig holes for the land telegraph posts on the following principle: one man takes a pick and bangs lazily at the hard earth; when a little is loosened, his mate with a small spade lifts it on one side; and *da capo.* They have regular features and look quite in place among the palms. Our English workmen screw the earthenware insulators on the posts, strain the wire, and order Arabs about by the generic term of Johnny. I find W—— has nothing for me to do, and that in fact no one has anything to do. Some instruments for testing have stuck at Lyons, some at Cagliari; and nothing can be done—or at any rate, is done. I wander about, thinking of you and staring at big, green grasshoppers —locusts, some people call them—and smelling the rich brushwood. There was nothing for a pencil to sketch, and I soon got tired of this work, though I have paid willingly much money for far less strange and lovely sights.

"Off Cape Spartivento: *June* 8.

"At two this morning, we left Cagliari; at five cast anchor here. I got up and began preparing for the final trial; and shortly afterwards every one else of note on board went ashore to make experiments on the state of the cable, leaving me with the prospect of beginning to lift at 12 o'clock. I was not ready by that time; but the experiments were not concluded and moreover the cable was found to be imbedded some four or five feet in sand, so that the boat could not bring off the end. At three, Messrs. Liddell, &c., came on board in good spirits, having found two wires good or in such a state as permitted messages to be transmitted freely. The boat now went to grapple for the cable some way from shore while the *Elba* towed a small lateen craft which was to take back the consul to Cagliari some distance on its way. On our return we found the boat had been unsuccessful; she was allowed to drop astern, while we grappled for the cable in the *Elba* [without more success]. The coast is a low mountain range covered with brushwood or heather—pools of water and a sandy beach at their feet. I have not yet been ashore, my hands having been very full all day.

"*June* 9.

"Grappling for the cable outside the bank had been voted too uncertain; [and the day was spent in] efforts to pull the cable off through the sand which has accumulated over it. By getting the cable tight on to the boat, and letting the swell pitch her about till it got slack, and then tightening again with blocks and pulleys, we managed to get out from the beach towards

the ship at the rate of about twenty yards an hour. When they had got about 100 yards from shore, we ran round in the *Elba* to try and help them, letting go the anchor in the shallowest possible water; this was about sunset. Suddenly some one calls out he sees the cable at the bottom; there it was sure enough, apparently wriggling about as the waves rippled. Great excitement; still greater when we find our own anchor is foul of it and has been the means of bringing it to light. We let go a grapnel, get the cable clear of the anchor on to the grapnel—the captain in an agony lest we should drift ashore meanwhile—hand the grappling line into the big boat, steam out far enough, and anchor again. A little more work and one end of the cable is up over the bows round my drum. I go to my engine and we start hauling in. All goes pretty well, but it is quite dark. Lamps are got at last, and men arranged. We go on for a quarter of a mile or so from shore and then stop at about half-past nine with orders to be up at three. Grand work at last! A number of the *Saturday Review* here; it reads so hot and feverish, so tomblike and unhealthy, in the midst of dear Nature's hills and sea, with good wholesome work to do. Pray that all go well to-morrow.

"*June* 10.

"Thank heaven for a most fortunate day. At three o'clock this morning in a damp, chill mist all hands were roused to work. With a small delay, for one or two improvements I had seen to be necessary last night, the engine started and since that time I do not think there has been half an hour's stoppage. A rope to

splice, a block to change, a wheel to oil, an old rusted anchor to disengage from the cable which brought it up, these have been our only obstructions. Sixty, seventy, eighty, a hundred, a hundred and twenty revolutions at last, my little engine tears away. The even black rope comes straight out of the blue heaving water; passes slowly round an open-hearted, good-tempered looking pulley, five feet diameter; aft past a vicious nipper, to bring all up should anything go wrong; through a gentle guide; on to a huge bluff drum, who wraps him round his body and says 'Come you must,' as plain as drum can speak: the chattering pawls say 'I 've got him, I 've got him, he can't get back;' whilst black cable, much slacker and easier in mind and body, is taken by a slim V-pulley and passed down into the huge hold, where half a dozen men put him comfortably to bed after his exertion in rising from his long bath. In good sooth, it is one of the strangest sights I know to see that black fellow rising up so steadily in the midst of the blue sea. We are more than half way to the place where we expect the fault; and already the one wire, supposed previously to be quite bad near the African coast, can be spoken through. I am very glad I am here, for my machines are my own children and I look on their little failings with a parent's eye and lead them into the path of duty with gentleness and firmness. I am naturally in good spirits, but keep very quiet, for misfortunes may arise at any instant; moreover to-morrow my paying-out apparatus will be wanted should all go well, and that will be another nervous operation. Fifteen miles are safely in; but no one knows better than I do that nothing is done till all is done.

"*June* 11.

"9 A. M.—We have reached the splice supposed to be faulty, and no fault has been found. The two men learned in electricity, L—— and W——, squabble where the fault is.

"*Evening.*—A weary day in a hot broiling sun; no air. After the experiments, L—— said the fault might be ten miles ahead; by that time, we should be according to a chart in about a thousand fathoms of water—rather more than a mile. It was most difficult to decide whether to go on or not. I made preparations for a heavy pull, set small things to rights and went to sleep. About four in the afternoon, Mr. Liddell decided to proceed, and we are now (at seven) grinding it in at the rate of a mile and three-quarters per hour, which appears a grand speed to us. If the paying-out only works well! I have just thought of a great improvement in it; I can't apply it this time, however.—The sea is of an oily calm, and a perfect fleet of brigs and ships surrounds us, their sails hardly filling in the lazy breeze. The sun sets behind the dim coast of the Isola San Pietro, the coast of Sardinia, high and rugged, becomes softer and softer in the distance, while to the westward still the isolated rock of Toro springs from the horizon.—It would amuse you to see how cool (in head) and jolly everybody is. A testy word now and then shows the wires are strained a little, but every one laughs and makes his little jokes as if it were all in fun: yet we are all as much in earnest as the most earnest of the earnest bastard German school or demonstrative of Frenchmen. I enjoy it very much.

"*June* 12.

"5.30 A.M.—Out of sight of land: about thirty nautical miles in the hold; the wind rising a little; experiments being made for a fault, while the engine slowly revolves to keep us hanging at the same spot: depth supposed about a mile. The machinery has behaved admirably. Oh! that the paying-out were over! The new machinery there is but rough, meant for an experiment in shallow water, and here we are in a mile of water.

"6.30.—I have made my calculations and find the new paying-out gear cannot possibly answer at this depth, some portion would give way. Luckily, I have brought the old things with me and am getting them rigged up as fast as may be. Bad news from the cable. Number four has given in some portion of the last ten miles: the fault in number three is still at the bottom of the sea: number two is now the only good wire; and the hold is getting in such a mess, through keeping bad bits out and cutting for splicing and testing, that there will be great risk in paying out. The cable is somewhat strained in its ascent from one mile below us; what it will be when we get to two miles is a problem we may have to determine.

"9 P.M.—A most provoking unsatisfactory day. We have done nothing. The wind and sea have both risen. Too litttle notice has been given to the telegraphists who accompany this expedition; they had to leave all their instruments at Lyons in order to arrive at Bona in time; our tests are therefore of the roughest, and no one really knows where the faults are. Mr. L——in the

morning lost much time; then he told us, after we had been inactive for about eight hours, that the fault in number three was within six miles; and at six o'clock in the evening, when all was ready for a start to pick up these six miles, he comes and says there must be a fault about thirty miles from Bona! By this time it was too late to begin paying out to-day, and we must lie here moored in a thousand fathoms till light to-morrow morning. The ship pitches a good deal, but the wind is going down.

"*June* 13, *Sunday*.

"The wind has not gone down, however. It now (at 10.30) blows a pretty stiff gale. The sea has also risen; and the *Elba's* bows rise and fall about 9 feet. We make twelve pitches to the minute, and the poor cable must feel very seasick by this time. We are quite unable to do anything, and continue riding at anchor in one thousand fathoms, the engines going constantly so as to keep the ship's bows up to the cable, which by this means hangs nearly vertical and sustains no strain but that caused by its own weight and the pitching of the vessel. We were all up at four, but the weather entirely forbade work for to-day, so some went to bed and most lay down, making up our leeway, as we nautically term our loss of sleep. I must say Liddell is a fine fellow and keeps his patience and temper wonderfully; and yet how he does fret and fume about trifles at home! This wind has blown now for 36 hours, and yet we have telegrams from Bona to say the sea there is as calm as a mirror. It makes one laugh to remember one is still tied to the shore. Click, click, click, the

pecker is at work: I wonder what Herr P—— says to Herr L——, —tests, tests, tests, nothing more. This will be a very anxious day.

"*June* 14.

"Another day of fatal inaction.

"*June* 15.

"9.30.—The wind has gone down a deal; but even now there are doubts whether we shall start to-day. When shall I get back to you?

"9 P.M.—Four miles from land. Our run has been successful and eventless. Now the work is nearly over I feel a little out of spirits—why, I should be puzzled to say—mere wantonness, or reaction perhaps after suspense.

"*June* 16.

"Up this morning at three, coupled my self-acting gear to the brake and had the satisfaction of seeing it pay out the last four miles in very good style. With one or two little improvements, I hope to make it a capital thing. The end has just gone ashore in two boats, three out of four wires good. Thus ends our first expedition. By some odd chance a *Times* of June the 7th has found its way on board through the agency of a wretched old peasant who watches the end of the line here. A long account of breakages in the Atlantic trial trip. To-night we grapple for the heavy cable, eight tons to the mile. I long to have a tug at him; he may puzzle me, and though misfortunes or rather difficulties are a bore at the time, life when working with cables is tame without them.

"2. P.M.—Hurrah, he is hooked, the big fellow, almost at the first cast. He hangs under our bows look-

ing so huge and imposing that I could find it in my heart to be afraid of him.

"*June* 17.

"We went to a little bay called Chia, where a fresh-water stream falls into the sea, and took in water. This is rather a long operation, so I went a walk up the valley with Mr. Liddell. The coast here consists of rocky mountains 800 to 1,000 feet high covered with shrubs of a brilliant green. On landing our first amusement was watching the hundreds of large fish who lazily swam in shoals about the river; the big canes on the further side hold numberless tortoises, we are told, but see none, for just now they prefer taking a siesta. A little further on, and what is this with large pink flowers in such abundance?—the oleander in full flower. At first I fear to pluck them, thinking they must be cultivated and valuable; but soon the banks show a long line of thick, tall shrubs, one mass of glorious pink and green. Set these in a little valley, framed by mountains whose rocks gleam out blue and purple colors such as pre-Raphaelites only dare attempt, shining out hard and weird-like amongst the clumps of castor-oil plants, cistus, arbor vitæ and many other evergreens, whose names, alas! I know not; the cistus is brown now, the rest all deep or brilliant green. Large herds of cattle browse on the baked deposit at the foot of these large crags. One or two half-savage herdsmen in sheepskin kilts, &c., ask for cigars; partridges whir up on either side of us; pigeons coo and nightingales sing amongst the blooming oleander. We get six sheep and many fowls, too, from the priest of the small

village; and then run back to Spartivento and make preparations for the morning.

"*June* 18.

"The big cable is stubborn and will not behave like his smaller brother. The gear employed to take him off the drum is not strong enough; he gets slack on the drum and plays the mischief. Luckily for my own conscience, the gear I had wanted was negatived by Mr. Newall. Mr. Liddell does not exactly blame me, but he says we might have had a silver pulley cheaper than the cost of this delay. He has telegraphed for more men to Cagliari, to try to pull the cable off the drum into the hold, by hand. I look as comfortable as I can, but feel as if people were blaming me. I am trying my best to get something rigged which may help us; I wanted a little difficulty, and feel much better.—The short length we have picked up was covered at places with beautiful sprays of coral, twisted and twined with shells of those small, fairy animals we saw in the aquarium at home; poor little things, they died at once, with their little bells and delicate bright tints.

"12 *o'clock.*—Hurrah, victory! for the present anyhow. Whilst in our first dejection, I thought I saw a place where a flat roller would remedy the whole misfortune; but a flat roller at Cape Spartivento, hard, easily unshipped, running freely! There was a grooved pulley used for the paying-out machinery with a spindle wheel, which might suit me. I filled him up with tarry spunyarn, nailed sheet copper round him, bent some parts in the fire; and we are paying-in without more trouble now. You would think some one would

praise me; no, no more praise than blame before; perhaps now they think better of me, though.

"10 P.M.—We have gone on very comfortably for nearly six miles. An hour and a half was spent washing down; for along with many coloured polypi, from corals, shells and insects, the big cable brings up much mud and rust, and makes a fishy smell by no means pleasant: the bottom seems to teem with life.—But now we are startled by a most unpleasant, grinding noise; which appeared at first to come from the large low pulley, but when the engines stopped, the noise continued; and we now imagine it is something slipping down the cable, and the pulley but acts as sounding-board to the big fiddle. Whether it is only an anchor or one of the two other cables, we know not. We hope it is not the cable just laid down.

"*June* 19.

"10 A.M.—All our alarm groundless, it would appear: the odd noise ceased after a time, and there was no mark sufficiently strong on the large cable to warrant the suspicion that we had cut another line through. I stopped up on the look-out till three in the morning, which made 23 hours between sleep and sleep. One goes dozing about, though, most of the day, for it is only when something goes wrong that one has to look alive. Hour after hour, I stand on the forecastle-head, picking off little specimens of polypi and coral, or lie on the saloon deck reading back numbers of the *Times*—till something hitches, and then all is hurly-burly once more. There are awnings all along the ship, and a most ancient, fish-like smell beneath.

"1 *o'clock.*—Suddenly a great strain in only 95 fathoms of water—belts surging and general dismay; grapnels being thrown out in the hope of finding what holds the cable.—Should it prove the young cable! We are apparently crossing its path—not the working one, but the lost child; Mr. Liddell *would* start the big one first though it was laid first; he wanted to see the job done, and meant to leave us to the small one unaided by his presence.

"*3.30.*—Grapnel caught something, lost it again; it left its marks on the prongs. Started lifting gear again; and after hauling in some 50 fathoms—grunt, grunt, grunt—we hear the other cable slipping down our big one, playing the selfsame tune we heard last night—louder, however.

"10 P.M.—The pull on the deck engines became harder and harder. I got steam up in a boiler on deck, and another little engine starts hauling at the grapnel. I wonder if there ever was such a scene of confusion: Mr. Liddell and W—— and the captain all giving orders contradictory, &c., on the forecastle; D——, the foreman of our men, the mates, &c., following the example of our superiors; the ship's engine and boilers below, a 50-horse engine on deck, a boiler 14 feet long on deck beside it, a little steam winch tearing round; a dozen Italians (20 have come to relieve our hands, the men we telegraphed for to Cagliari) hauling at the rope; wiremen, sailors, in the crevices left by ropes and machinery; everything that could swear swearing—I found myself swearing like a trooper at last. We got the unknown difficulty within ten fathoms of the surface; but then the forecastle got frightened that, if it

was the small cable which we had got hold of, we should certainly break it by continuing the tremendous and increasing strain. So at last Mr. Liddell decided to stop; cut the big cable, buoying its end; go back to our pleasant watering-place at Chia, take more water and start lifting the small cable. The end of the large one has even now regained its sandy bed; and three buoys — one to grapnel foul of the supposed small cable, two to the big cable — are dipping about on the surface. One more — a flag-buoy — will soon follow, and then straight for shore.

"*June* 20.

"It is an ill-wind, &c. I have an unexpected opportunity of forwarding this engineering letter; for the craft which brought out our Italian sailors must return to Cagliari to-night, as the little cable will take us nearly to Galita, and the Italian skipper could hardly find his way from thence. To-day — Sunday — not much rest. Mr. Liddell is at Spartivento telegraphing. We are at Chia, and shall shortly go to help our boat's crew in getting the small cable on board. We dropped them some time since in order that they might dig it out of the sand as far as possible.

"*June* 21.

"Yesterday — Sunday as it was — all hands were kept at work all day, coaling, watering, and making a futile attempt to pull the cable from the shore on board through the sand. This attempt was rather silly after the experience we had gained at Cape Spartivento. This morning we grappled, hooked the cable at once,

and have made an excellent start. Though I have called this the small cable, it is much larger than the Bona one.— Here comes a break down and a bad one.

"*June* 22.

"We got over it, however; but it is a warning to me that my future difficulties will arise from parts wearing out. Yesterday the cable was often a lovely sight, coming out of the water one large incrustation of delicate, net-like corals and long, white curling shells. No portion of the dirty black wires was visible; instead we had a garland of soft pink with little scarlet sprays and white enamel intermixed. All was fragile, however, and could hardly be secured in safety; and inexorable iron crushed the tender leaves to atoms.— This morning at the end of my watch, about 4 o'clock, we came to the buoys, proving our anticipations right concerning the crossing of the cables. I went to bed for four hours, and on getting up, found a sad mess. A tangle of the six-wire cable hung to the grapnel which had been left buoyed, and the small cable had parted and is lost for the present. Our hauling of the other day must have done the mischief.

"*June* 23.

"We contrived to get the two ends of the large cable and to pick the short end up. The long end, leading us seaward, was next put round the drum and a mile of it picked up; but then, fearing another tangle, the end was cut and buoyed, and we returned to grapple for the three-wire cable. All this is very tiresome for me. The buoying and dredging are managed entirely

by W——, who has had much experience in this sort of thing; so I have not enough to do and get very homesick. At noon the wind freshened and the sea rose so high that we had to run for land and are once more this evening anchored at Chia.

"*June* 24.

"The whole day spent in dredging without success. This operation consists in allowing the ship to drift slowly across the line where you expect the cable to be, while at the end of a long rope, fast either to the bow or stern, a grapnel drags along the ground. This grapnel is a small anchor, made like four pot-hooks tied back to back. When the rope gets taut, the ship is stopped and the grapnel hauled up to the surface in the hopes of finding the cable on its prongs.—I am much discontented with myself for idly lounging about and reading *Westward Ho!* for the second time, instead of taking to electricity or picking up nautical information. I am uncommonly idle. The sea is not quite so rough, but the weather is squally and the rain comes in frequent gusts.

"*June* 25.

"To-day about 1 o'clock we hooked the three-wire cable, buoyed the long sea end, and picked up the short [or shore] end. Now it is dark and we must wait for morning before lifting the buoy we lowered to-day and proceeding seawards.—The depth of water here is about 600 feet, the height of a respectable English hill; our fishing line was about a quarter of a mile long. It blows pretty fresh, and there is a great deal of sea.

"*26th.*

"This morning it came on to blow so heavily that it was impossible to take up our buoy. The *Elba* recommenced rolling in true Baltic style and towards noon we ran for land.

"*27th, Sunday.*

"This morning was a beautiful calm. We reached the buoys at about 4.30 and commenced picking up at 6.30. Shortly a new cause of anxiety arose. Kinks came up in great quantities, about thirty in the hour. To have a true conception of a kink, you must see one: it is a loop drawn tight, all the wires get twisted and the gutta-percha inside pushed out. These much diminish the value of the cable, as they must all be cut out, the gutta-percha made good, and the cable spliced. They arise from the cable having been badly laid down so that it forms folds and tails at the bottom of the sea. These kinks have another disadvantage: they weaken the cable very much.—At about six o'clock [P.M.] we had some twelve miles lifted, when I went to the bows; the kinks were exceedingly tight and were giving way in a most alarming manner. I got a cage rigged up to prevent the end (if it broke) from hurting any one, and sat down on the bowsprit, thinking I should describe kinks to Annie:—suddenly I saw a great many coils and kinks altogether at the surface. I jumped to the gutta-percha pipe, by blowing through which the signal is given to stop the engine. I blow, but the engine does not stop; again—no answer: the coils and kinks jam in the bows and I rush aft shouting, 'stop!' Too late: the cable had parted and must lie in peace at the

bottom. Some one had pulled the gutta-percha tube across a bare part of the steam pipe and melted it. It had been used hundreds of times in the last few days and gave no symptoms of failing. I believe the cable must have gone at any rate; however, since it went in my watch and since I might have secured the tubing more strongly, I feel rather sad. . . .

"*June* 28.

"Since I could not go to Annie I took down Shakespeare, and by the time I had finished *Antony and Cleopatra*, read the second half of *Troilus* and got some way in *Coriolanus*, I felt it was childish to regret the accident had happened in my watch, and moreover I felt myself not much to blame in the tubing matter — it had been torn down, it had not fallen down; so I went to bed, and slept without fretting, and woke this morning in the same good mood — for which thank you and our friend Shakespeare. I am happy to say Mr. Liddell said the loss of the cable did not much matter; though this would have been no consolation had I felt myself to blame. This morning we have grappled for and found another length of small cable which Mr. —— dropped in 100 fathoms of water. If this also gets full of kinks, we shall probably have to cut it after ten miles or so, or more probably still it will part of its own free will or weight.

"10 P.M.—This second length of three-wire cable soon got into the same condition as its fellow — i. e. came up twenty kinks an hour — and after seven miles were in, parted on the pulley over the bows at one of the said kinks; during my watch again, but this time no earthly power could have saved it. I had taken all

manner of precautions to prevent the end doing any damage when the smash came, for come I knew it must. We now return to the six-wire cable. As I sat watching the cable to-night, large phosphorescent globes kept rolling from it and fading in the black water.

"*June* 29.

"To-day we returned to the buoy we had left at the end of the six-wire cable, and after much trouble from a series of tangles, got a fair start at noon. You will easily believe a tangle of iron rope inch and a half diameter is not easy to unravel, especially with a ton or so hanging to the ends. It is now eight o'clock and we have about six and a half miles safe: it becomes very exciting, however, for the kinks are coming fast and furious.

"*July* 2.

"Twenty-eight miles safe in the hold. The ship is now so deep, that the men are to be turned out of their aft hold, and the remainder coiled there; so the good *Elba's* nose need not burrow too far into the waves. There can only be about 10 or 12 miles more, but these weigh 80 or 100 tons.

"*July* 5.

"Our first mate was much hurt in securing a buoy on the evening of the second. As interpreter [with the Italians] I am useful in all these cases; but for no fortune would I be a doctor to witness these scenes continually. Pain is a terrible thing.—Our work is done: the whole of the six-wire cable has been recovered; only a small part of the three-wire, but that wire was bad and, owing to its twisted state, the value small. We may therefore be said to have been very successful."

## II

I have given this cruise nearly in full. From the notes, unhappily imperfect, of two others, I will take only specimens; for in all there are features of similarity and it is possible to have too much even of submarine telegraphy and the romance of engineering. And first from the cruise of 1859 in the Greek Islands and to Alexandria, take a few traits, incidents and pictures.

"*May* 10, 1859.

"We had a fair wind and we did very well, seeing a little bit of Cerig or Cythera, and lots of turtle-doves wandering about over the sea and perching, tired and timid, in the rigging of our little craft. Then Falconera, Antimilo, and Milo, topped with huge white clouds, barren, deserted, rising bold and mysterious from the blue, chafing sea;—Argentiera, Siphano, Scapho, Paros, Antiparos, and late at night Syra itself. *Adam Bede* in one hand, a sketch-book in the other, lying on rugs under an awning, I enjoyed a very pleasant day.

"*May* 14.

"Syra is semi-eastern. The pavement, huge shapeless blocks sloping to a central gutter; from this bare two-storied houses, sometimes plaster many coloured, sometimes rough-hewn marble, rise, dirty and ill-finished, to straight, plain, flat roofs; shops guiltless of windows, with signs in Greek letters; dogs, Greeks in blue, baggy Zouave breeches and a fez, a few narghilehs and a sprinkling of the ordinary continental shopboys.—In the evening I tried one more walk in

Syra with A——, but in vain endeavoured to amuse myself or to spend money; the first effort resulting in singing *Doodah* to a passing Greek or two, the second in spending, no, in making A—— spend, threepence on coffee for three.

"*May* 16.

"On coming on deck, I found we were at anchor in Canea bay, and saw one of the most lovely sights man could witness. Far on either hand stretch bold mountain capes, Spada and Maleka, tender in colour, bold in outline; rich sunny levels lie beneath them, framed by the azure sea. Right in front, a dark brown fortress girdles white mosques and minarets. Rich and green, our mountain capes here join to form a setting for the town, in whose dark walls—still darker—open a dozen high-arched caves in which the huge Venetian galleys used to lie in wait. High above all, higher and higher yet, up into the firmament, range after range of blue and snow-capped mountains. I was bewildered and amazed, having heard nothing of this great beauty. The town when entered is quite eastern. The streets are formed of open stalls under the first story, in which squat tailors, cooks, sherbet venders and the like, busy at their work or smoking narghilehs. Cloths stretched from house to house keep out the sun. Mules rattle through the crowd; curs yelp between your legs; negroes are as hideous and bright clothed as usual; grave Turks with long chibouques continue to march solemnly without breaking them; a little Arab in one dirty rag pokes fun at two splendid little Turks with brilliant fezzes; wiry mountaineers in dirty, full, white

kilts, shouldering long guns and one hand on their pistols, stalk untamed past a dozen Turkish soldiers, who look sheepish and brutal in worn cloth jacket and cotton trousers. A headless, wingless lion of St. Mark still stands upon a gate, and has left the mark of his strong clutch. Of ancient times when Crete was Crete, not a trace remains; save perhaps in the full, well-cut nostril and firm tread of that mountaineer, and I suspect that even his sires were Albanians, mere outer barbarians.

"*May* 17.

"I spent the day at the little station where the cable was landed, which has apparently been first a Venetian monastery and then a Turkish mosque. At any rate the big dome is very cool, and the little ones hold [our electric] batteries capitally. A handsome young Bashi-bazouk guards it, and a still handsomer mountaineer is the servant; so I draw them and the monastery and the hill, till I'm black in the face with heat and come on board to hear the Canea cable is still bad.

"*May* 23.

"We arrived in the morning at the east end of Candia, and had a glorious scramble over the mountains, which seem built of adamant. Time has worn away the softer portions of the rock, only leaving sharp jagged edges of steel. Sea eagles soaring above our heads; old tanks, ruins, and desolation at our feet. The ancient Arsinoe stood here; a few blocks of marble with the cross attest the presence of Venetian Christians; but now — the desolation of desolations. Mr. Liddell and I separated from the rest, and when we had found a sure

bay for the cable, had a tremendous lively scramble back to the boat. These are the bits of our life which I enjoy, which have some poetry, some grandeur in them.

"*May* 29 (?).

"Yesterday we ran round to the new harbour [of Alexandria], landed the shore end of the cable close to Cleopatra's bath, and made a very satisfactory start about one in the afternoon. We had scarcely gone 200 yards when I noticed that the cable ceased to run out, and I wondered why the ship had stopped. People ran aft to tell me not to put such a strain on the cable; I answered indignantly that there was no strain; and suddenly it broke on every one in the ship at once that we were aground. Here was a nice mess. A violent scirocco blew from the land; making one's skin feel as if it belonged to some one else and didn't fit, making the horizon dim and yellow with fine sand, oppressing every sense and raising the thermometer 20 degrees in an hour, but making calm water round us which enabled the ship to lie for the time in safety. The wind might change at any moment, since the scirocco was only accidental; and at the first wave from seaward bump would go the poor ship, and there would [might] be an end of our voyage. The captain, without waiting to sound, began to make an effort to put the ship over what was supposed to be a sandbank; but by the time soundings were made, this was found to be impossible, and he had only been jamming the poor *Elba* faster on a rock. Now every effort was made to get her astern, an anchor taken out, a rope brought to a winch I had for the cable, and the engines backed; but

all in vain. A small Turkish Government steamer, which is to be our consort, came to our assistance, but of course very slowly, and much time was occupied before we could get a hawser to her. I could do no good after having made a chart of the soundings round the ship, and went at last on to the bridge to sketch the scene. But at that moment the strain from the winch and a jerk from the Turkish steamer got off the boat, after we had been some hours aground. The carpenter reported that she had made only two inches of water in one compartment; the cable was still uninjured astern, and our spirits rose; when, will you believe it? after going a short distance astern, the pilot ran us once more fast aground on what seemed to me nearly the same spot. The very same scene was gone through as on the first occasion, and dark came on whilst the wind shifted, and we were still aground. Dinner was served up, but poor Mr. Liddell could eat very little; and bump, bump, grind, grind, went the ship fifteen or sixteen times as we sat at dinner. The slight sea, however, did enable us to bump off. This morning we appear not to have suffered in any way; but a sea is rolling in, which a few hours ago would have settled the poor old *Elba*.

*"June—.*

"The Alexandria cable has again failed; after paying out two-thirds of the distance successfully, an unlucky touch in deep water snapped the line. Luckily the accident occurred in Mr. Liddell's watch. Though personally it may not really concern me, the accident weighs like a personal misfortune. Still I am glad I was present: a failure is probably more instructive than a

success; and this experience may enable us to avoid misfortune in still greater undertakings.

"*June* —.

"We left Syra the morning after our arrival on Saturday the 4th. This we did (first) because we were in a hurry to do something and (second) because, coming from Alexandria, we had four days' quarantine to perform. We were all mustered along the side while the doctor counted us; the letters were popped into a little tin box and taken away to be smoked; the guardians put on board to see that we held no communication with the shore — without them we should still have had four more day's quarantine; and with twelve Greek sailors besides, we started merrily enough picking up the Canea cable. . . . To our utter dismay, the yarn covering began to come up quite decayed, and the cable, which when laid should have borne half a ton, was now in danger of snapping with a tenth part of that strain. We went as slow as possible in fear of a break at every instant. My watch was from eight to twelve in the morning, and during that time we had barely secured three miles of cable. Once it broke inside the ship, but I seized hold of it in time — the weight being hardly anything — and the line for the nonce was saved. Regular nooses were then planted inboard with men to draw them taut, should the cable break inboard. A——, who should have relieved me, was unwell, so I had to continue my look-out; and about one o'clock the line again parted, but was again caught in the last noose, with about four inches to spare. Five minutes afterwards it again parted and was yet once more caught.

Mr. Liddell (whom I had called) could stand this no longer; so we buoyed the line and ran into a bay in Siphano, waiting for calm weather, though I was by no means of opinion that the slight sea and wind had been the cause of our failures.—All next day (Monday) we lay off Siphano, amusing ourselves on shore with fowling-pieces and navy revolvers. I need not say we killed nothing; and luckily we did not wound any of ourselves. A guardiano accompanied us, his functions being limited to preventing actual contact with the natives, for they might come as near and talk as much as they pleased. These isles of Greece are sad, interesting places. They are not really barren all over, but they are quite destitute of verdure; and tufts of thyme, wild mastic or mint, though they sound well, are not nearly so pretty as grass. Many little churches, glittering white, dot the islands; most of them, I believe, abandoned during the whole year with the exception of one day sacred to their patron saint. The villages are mean, but the inhabitants do not look wretched and the men are good sailors. There is something in this Greek race yet; they will become a powerful Levantine nation in the course of time.—What a lovely moonlight evening that was! the barren island cutting the clear sky with fantastic outline, marble cliffs on either hand fairly gleaming over the calm sea. Next day, the wind still continuing, I proposed a boating excursion and decoyed A——, L——, and S—— into accompanying me. We took the little gig, and sailed away merrily enough round a point to a beautiful white bay, flanked with two glistening little churches, fronted by beautiful distant islands; when suddenly, to my horror, I discovered the

*Elba* steaming full speed out from the island. Of course we steered after her; but the wind that instant ceased, and we were left in a dead calm. There was nothing for it but to unship the mast, get out the oars and pull. The ship was nearly certain to stop at the buoy; and I wanted to learn how to take an oar, so here was a chance with a vengeance. L—— steered, and we three pulled—a broiling pull it was about half way across to Palikandro—still we did come in, pulling an uncommon good stroke, and I had learned to hang on my oar. L—— had pressed me to let him take my place; but though I was very tired at the end of the first quarter of an hour, and then every successive half hour, I would not give in. I nearly paid dear for my obstinacy, however; for in the evening I had alternate fits of shivering and burning."

## III

The next extracts, and I am sorry to say the last, are from Fleeming's letters of 1860, when he was back at Bona and Spartivento and for the first time at the head of an expedition. Unhappily these letters are not only the last, but the series is quite imperfect; and this is the more to be lamented as he had now begun to use a pen more skilfully, and in the following notes there is at times a touch of real distinction in the manner.

"Cagliari: *October* 5, 1860.

"All Tuesday I spent examining what was on board the *Elba*, and trying to start the repairs of the Spartivento land line, which has been entirely neglected, and

no wonder, for no one has been paid for three months, no, not even the poor guards who have to keep themselves, their horses and their families, on their pay. Wednesday morning, I started for Spartivento and got there in time to try a good many experiments. Spartivento looks more wild and savage than ever, but is not without a strange deadly beauty: the hills covered with bushes of a metallic green with coppery patches of soil in between; the valleys filled with dry salt mud and a little stagnant water; where that very morning the deer had drunk, where herons, curlews, and other fowl abound, and where, alas! malaria is breeding with this rain. (No fear for those who do not sleep on shore.) A little iron hut had been placed there since 1858; but the windows had been carried off, the door broken down, the roof pierced all over. In it, we sat to make experiments; and how it recalled Birkenhead! There was Thomson, there was my testing board, the strings of gutta-percha; Harry P—— even, battering with the batteries; but where was my darling Annie? Whilst I sat feet in sand, with Harry alone inside the hut—mats, coats, and wood to darken the window—the others visited the murderous old friar, who is of the order of Scaloppi, and for whom I brought a letter from his superior, ordering him to pay us attention; but he was away from home, gone to Cagliari in a boat with the produce of the farm belonging to his convent. Then they visited the tower of Chia, but could not get in because the door is thirty feet off the ground; so they came back and pitched a magnificent tent which I brought from the *Bahiana* a long time ago—and where they will live (if I mistake not) in preference to the

friar's, or the owl- and bat-haunted tower. MM. T—— and S—— will be left there: T——, an intelligent, hard-working Frenchman, with whom I am well pleased; he can speak English and Italian well, and has been two years at Genoa. S—— is a French-German with a face like an ancient Gaul, who has been sergeant-major in the French line and who is, I see, a great, big, muscular *fainéant.* We left the tent pitched and some stores in charge of a guide, and ran back to Cagliari.

"Certainly, being at the head of things is pleasanter than being subordinate. We all agree very well; and I have made the testing office into a kind of private room where I can come and write to you undisturbed, surrounded by my dear, bright brass things which all of them remind me of our nights at Birkenhead. Then I can work here, too, and try lots of experiments; you know how I like that! and now and then I read—Shakespeare principally. Thank you so much for making me bring him: I think I must get a pocket edition of *Hamlet* and *Henry the Fifth,* so as never to be without them.

"Cagliari: *October* 7.

"[The town was full?] . . . of red-shirted English Garibaldini. A very fine looking set of fellows they are, too: the officers rather raffish, but with medals Crimean and Indian; the men a very sturdy set, with many lads of good birth I should say. They still wait their consort the Emperor and will, I fear, be too late to do anything. I meant to have called on them, but they are all gone into barracks some way from the town, and I have been much too busy to go far.

"The view from the ramparts was very strange and beautiful. Cagliari rises on a very steep rock, at the mouth of a wide plain circled by large hills and three-quarters filled with lagoons; it looks, therefore, like an old island citadel. Large heaps of salt mark the border between the sea and the lagoons; thousands of flamingoes whiten the centre of the huge shallow marsh; hawks hover and scream among the trees under the high mouldering battlements.—A little lower down, the band played. Men and ladies bowed and pranced, the costumes posed, church bells tinkled, processions processed, the sun set behind thick clouds capping the hills; I pondered on you and enjoyed it all.

"Decidedly I prefer being master to being man: boats at all hours, stewards flying for marmalade, captain enquiring when ship is to sail, clerks to copy my writing, the boat to steer when we go out—I have run her nose on several times; decidedly, I begin to feel quite a little king. Confound the cable, though! I shall never be able to repair it.

"Bona: *October* 14.

"We left Cagliari at 4.30 on the 9th and soon got to Spartivento. I repeated some of my experiments, but found Thomson, who was to have been my grand stand-by, would not work on that day in the wretched little hut. Even if the windows and door had been put in, the wind, which was very high, made the lamp flicker about and blew it out; so I sent on board and got old sails, and fairly wrapped the hut up in them; and then we were as snug as could be, and I left the hut in glorious condition with a nice little stove in it.

The tent which should have been forthcoming from the curé's for the guards, had gone to Cagliari; but I found another, [a] green, Turkish tent, in the *Elba* and soon had him up. The square tent left on the last occasion was standing all right and tight in spite of wind and rain. We landed provisions, two beds, plates, knives, forks, candles, cooking utensils, and were ready for a start at 6 P.M.; but the wind meanwhile had come on to blow at such a rate that I thought better of it, and we stopped. T—— and S—— slept ashore, however, to see how they liked it; at least they tried to sleep, for S——, the ancient sergeant-major, had a toothache, and T—— thought the tent was coming down every minute. Next morning they could only complain of sand and a leaky coffee-pot, so I leave them with a good conscience. The little encampment looked quite picturesque: the green round tent, the square white tent and the hut all wrapped up in sails, on a sand hill, looking on the sea and masking those confounded marshes at the back. One would have thought the Cagliaritans were in a conspiracy to frighten the two poor fellows, who (I believe) will be safe enough if they do not go into the marshes after nightfall. S—— brought a little dog to amuse them, such a jolly, ugly little cur without a tail, but full of fun; he will be better than quinine.

"The wind drove a barque, which had anchored near us for shelter, out to sea. We started, however, at 2 P.M., and had a quick passage but a very rough one, getting to Bona by daylight [on the 11th]. Such a place as this is for getting anything done! The health boat went away from us at 7.30 with W—— on board; and we heard nothing of them till 9.30, when W——

came back with two fat Frenchmen who are to look on on the part of the Government. They are exactly alike: only one has four bands and the other three round his cap, and so I know them. Then I sent a boat round to Fort Gênois [Fort Genova of 1858], where the cable is landed, with all sorts of things and directions, whilst I went ashore to see about coals and a room at the fort. We hunted people in the little square in their shops and offices, but only found them in cafés. One amiable gentleman wasn't up at 9.30, was out at 10, and as soon as he came back the servant said he would go to bed and not get up till 3: he came, however, to find us at a café, and said that, on the contrary, two days in the week he did not do so! Then my two fat friends must have their breakfast after their 'something' at a café; and all the shops shut from 10 to 2; and the post does not open till 12; and there was a road to Fort Gênois, only a bridge had been carried away, &c. At last I got off, and we rowed round to Fort Gênois, where my men had put up a capital gipsy tent with sails, and there was my big board and Thomson's number 5 in great glory. I soon came to the conclusion there was a break. Two of my faithful Cagliaritans slept all night in the little tent, to guard it and my precious instruments; and the sea, which was rather rough, silenced my Frenchmen.

"Next day I went on with my experiments, whilst a boat grappled for the cable a little way from shore and buoyed it where the *Elba* could get hold. I brought all back to the *Elba*, tried my machinery and was all ready for a start next morning. But the wretched coal had not come yet; Government permission from Algiers

to be got; lighters, men, baskets, and I know not what forms to be got or got through — and everybody asleep! Coals or no coals, I was determined to start next morning; and start we did at four in the morning, picked up the buoy with our deck engine, popped the cable across a boat, tested the wires to make sure the fault was not behind us, and started picking up at 11. Everything worked admirably, and about 2 P.M., in came the fault. There is no doubt the cable was broken by coral fishers; twice they have had it up to their own knowledge.

"Many men have been ashore to-day and have come back tipsy, and the whole ship is in a state of quarrel from top to bottom, and they will gossip just within my hearing. And we have had, moreover, three French gentlemen and a French lady to dinner, and I had to act host and try to manage the mixtures to their taste. The good-natured little Frenchwoman was most amusing; when I asked her if she would have some apple tart — '*Mon Dieu,*' with heroic resignation, '*je veux bien;*' or a little *plombodding* — '*Mais ce que vous voudrez, Monsieur!*'

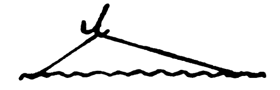
"S. S. *Elba*, somewhere not far from Bona: *Oct.* 19.

"Yesterday [after three previous days of useless grappling] was destined to be very eventful. We began dredging at daybreak and hooked at once every time in rocks; but by capital luck, just as we were deciding it was no use to continue in that place, we hooked the cable: up it came, was tested, and lo! another complete break, a quarter of a mile off. I was amazed at my own tranquillity under these disappointments, but I was not really half so fussy as about getting a cab.

Well, there was nothing for it but grappling again, and, as you may imagine, we were getting about six miles from shore. But the water did not deepen rapidly; we seemed to be on the crest of a kind of submarine mountain in prolongation of Cape de Gonde, and pretty havoc we must have made with the crags. What rocks we did hook! No sooner was the grapnel down than the ship was anchored; and then came such a business: ship's engines going, deck engine thundering, belt slipping, fear of breaking ropes: actually breaking grapnels. It was always an hour or more before we could get the grapnel down again. At last we had to give up the place, though we knew we were close to the cable, and go further to sea in much deeper water; to my great fear, as I knew the cable was much eaten away and would stand but little strain. Well, we hooked the cable first dredge this time, and pulled it slowly and gently to the top, with much trepidation. Was it the cable? was there any weight on? it was evidently too small. Imagine my dismay when the cable did come up, but hanging loosely, thus



instead of taut, thus



showing certain signs of a break close by. For a moment I felt provoked, as I thought, 'Here we are in

deep water, and the cable will not stand lifting!' I tested at once, and by the very first wire found it had broken towards shore and was good towards sea. This was of course very pleasant; but from that time to this, though the wires test very well, not a signal has come from Spartivento. I got the cable into a boat, and a gutta-percha line from the ship to the boat, and we signalled away at a great rate — but no signs of life. The tests, however, make me pretty sure one wire at least is good; so I determined to lay down cable from where we were to the shore, and go to Spartivento to see what had happened there. I fear my men are ill. The night was lovely, perfectly calm; so we lay close to the boat and signals were continually sent, but with no result. This morning I laid the cable down to Fort Gênois in style; and now we are picking up odds and ends of cable between the different breaks, and getting our buoys on board, &c. To-morrow I expect to leave for Spartivento."

## IV

And now I am quite at an end of journal keeping; diaries and diary letters being things of youth which Fleeming had at length outgrown. But one or two more fragments from his correspondence may be taken, and first this brief sketch of the laying of the Norderney cable; mainly interesting as showing under what defects of strength and in what extremities of pain this cheerful man must at times continue to go about his work.

"I slept on board 29th September, having arranged

everything to start by daybreak from where we lay in the roads: but at daybreak a heavy mist hung over us so that nothing of land or water could be seen. At midday it lifted suddenly and away we went with perfect weather, but could not find the buoys Forde left, that evening. I saw the captain was not strong in navigation, and took matters next day much more into my own hands and before nine o'clock found the buoys (the weather had been so fine we had anchored in the open sea near Texel). It took us till the evening to reach the buoys, get the cable on board, test the first half, speak to Lowestoft, make the splice, and start. H—— had not finished his work at Norderney, so I was alone on board for Reuter. Moreover the buoys to guide us in our course were not placed, and the captain had very vague ideas about keeping his course; so I had to do a good deal, and only lay down as I was for two hours in the night. I managed to run the course perfectly. Everything went well, and we found Norderney just where we wanted it next afternoon, and if the shore end had been laid, could have finished there and then, October 1st. But when we got to Norderney, we found the *Caroline* with shore end lying apparently aground, and could not understand her signals; so we had to anchor suddenly and I went off in a small boat with the captain to the *Caroline*. It was cold by this time, and my arm was rather stiff and I was tired; I hauled myself up on board the *Caroline* by a rope and found H—— and two men on board. All the rest were trying to get the shore end on shore, but had failed and apparently had stuck on shore, and the waves were getting up. We had anchored in the

right place and next morning we hoped the shore end would be laid, so we had only to go back. It was of course still colder and quite night. I went to bed and hoped to sleep, but, alas, the rheumatism got into the joints and caused me terrible pain so that I could not sleep. I bore it as long as I could in order to disturb no one, for all were tired; but at last I could bear it no longer and managed to wake the steward and got a mustard poultice, which took the pain from the shoulder; but then the elbow got very bad, and I had to call the second steward and get a second poultice, and then it was daylight, and I felt very ill and feverish. The sea was now rather rough — too rough rather for small boats, but luckily a sort of thing called a scoot came out, and we got on board her with some trouble, and got on shore after a good tossing about which made us all sea-sick. The cable sent from the *Caroline* was just 60 yards too short and did not reach the shore, so although the *Caroline* did make the splice late that night, we could neither test nor speak. Reuter was at Norderney, and I had to do the best I could, which was not much, and went to bed early; I thought I should never sleep again, but in sheer desperation got up in the middle of the night and gulped a lot of raw whisky and slept at last. But not long. A Mr. F—— washed my face and hands and dressed me; and we hauled the cable out of the sea, and got it joined to the telegraph station, and on October 3rd telegraphed to Lowestoft first and then to London. Miss Clara Volkman, a niece of Mr. Reuter's, sent the first message to Mrs. Reuter, who was waiting (Varley used Miss Clara's hand as a kind of key), and I sent one of

the first messages to Odden. I thought a message addressed to him would not frighten you, and that he would enjoy a message through Papa's cable. I hope he did. They were all very merry, but I had been so lowered by pain that I could not enjoy myself in spite of the success."

## V

Of the 1869 cruise in the *Great Eastern,* I give what I am able; only sorry it is no more, for the sake of the ship itself, already almost a legend even to the generation that saw it launched.

"*June* 17, 1869.—Here are the names of our staff in whom I expect you to be interested, as future *Great Eastern* stories may be full of them: Theophilus Smith, a man of Latimer Clark's; Leslie C. Hill, my prizeman at University College; Lord Sackville Cecil; King, one of the Thomsonian Kings; Laws, goes for Willoughby Smith, who will also be on board; Varley, Clark, and Sir James Anderson make up the sum of all you know anything of. A Captain Halpin commands the big ship. There are four smaller vessels. The *Wm. Cory,* which laid the Norderney cable, has already gone to St. Pierre to lay the shore ends. The *Hawk* and *Chiltern* have gone to Brest to lay shore ends. The *Hawk* and *Scanderia* go with us across the Atlantic and we shall at St. Pierre be trans-shipped into one or the other.

"*June* 18. *Somewhere in London.*—The shore end is laid, as you may have seen, and we are all under pressing orders to march, so we start from London tonight at 5.10.

"*June* 20. *Off Usbant.*—I am getting quite fond of the big ship. Yesterday morning in the quiet sunlight, she turned so slowly and lazily in the great harbour at Portland, and bye and bye slipped out past the long pier with so little stir, that I could hardly believe we were really off. No men drunk, no women crying, no singing or swearing, no confusion or bustle on deck—nobody apparently aware that they had anything to do. The look of the thing was that the ship had been spoken to civilly and had kindly undertaken to do everything that was necessary without any further interference. I have a nice cabin with plenty of room for my legs in my berth and have slept two nights like a top. Then we have the ladies' cabin set apart as an engineer's office, and I think this decidedly the nicest place in the ship: 35 ft. × 20 ft. broad—four tables, three great mirrors, plenty of air and no heat from the funnels which spoil the great dining-room. I saw a whole library of books on the walls when here last, and this made me less anxious to provide light literature; but alas, to-day I find that they are every one bibles or prayer-books. Now one cannot read many hundred bibles. . . . As for the motion of the ship it is not very much, but 'twill suffice. Thomson shook hands and wished me well. I *do* like Thomson. . . . Tell Austin that the *Great Eastern* has six masts and four funnels. When I get back I will make a little model of her for all the chicks and pay out cotton reels. . . . Here we are at 4.20 at Brest. We leave probably to-morrow morning.

"*July* 12. *Great Eastern.*—Here as I write we run our last course for the buoy at the St. Pierre shore end.

It blows and lightens, and our good ship rolls, and buoys are hard to find; but we must soon now finish our work, and then this letter will start for home. . . . Yesterday we were mournfully groping our way through the wet grey fog, not at all sure where we were, with one consort lost and the other faintly answering the roar of our great whistle through the mist. As to the ship which was to meet us, and pioneer us up the deep channel, we did not know if we should come within twenty miles of her; when suddenly up went the fog, out came the sun, and there, straight ahead, was the *Wm. Cory,* our pioneer, and a little dancing boat, the *Gulnare,* sending signals of welcome with many-coloured flags. Since then we have been steaming in a grand procession; but now at 2 A.M. the fog has fallen, and the great roaring whistle calls up the distant answering notes all around us. Shall we, or shall we not find the buoy?

"*July* 13.—All yesterday we lay in the damp dripping fog, with whistles all round and guns firing so that we might not bump up against one another. This little delay has let us get our reports into tolerable order. We are now at seven o'clock getting the cable end again, with the main cable buoy close to us."

*A telegram of July* 20: "I have received your four welcome letters. The Americans are charming people."

## VI

And here to make an end are a few random bits about the cruise to Pernambuco:—

"*Plymouth, June* 21, 1873.—I have been down to

the sea-shore and smelt the salt sea and like it; and I have seen the *Hooper* pointing her great bow sea-ward, while light smoke rises from her funnels telling that the fires are being lighted; and sorry as I am to be without you, something inside me answers to the call to be off and doing.

"*Lalla Rookh. Plymouth, June* 22.—We have been a little cruise in the yacht over to the Eddystone lighthouse, and my sea-legs seem very well on. Strange how alike all these starts are—first on shore, steaming hot days with a smell of bone-dust and tar and salt water; then the little puffing, panting steam-launch that bustles out across a port with green woody sides, little yachts sliding about, men-of-war training-ships, and then a great big black hulk of a thing with a mass of smaller vessels sticking to it like parasites; and that is one's home being coaled. Then comes the Champagne lunch where everyone says all that is polite to everyone else, and then the uncertainty when to start. So far as we know *now*, we are to start to-morrow morning at daybreak; letters that come later are to be sent to Pernambuco by first mail. . . . My father has sent me the heartiest sort of Jack Tar's cheer.

"*S. S. Hooper. Off Funchal, June* 29.—Here we are off Madeira at seven o'clock in the morning. Thomson has been sounding with his special toy ever since half-past three (1087 fathoms of water). I have been watching the day break, and long jagged islands start into being out of the dull night. We are still some miles from land; but the sea is calmer than Loch Eil often was, and the big *Hooper* rests very contentedly after a pleasant voyage and favourable breezes. I have

not been able to do any real work except the testing [of the cable], for though not sea-sick, I get a little giddy when I try to think on board. . . . The ducks have just had their daily souse and are quacking and gabbling in a mighty way outside the door of the captain's deck cabin where I write. The cocks are crowing, and new-laid eggs are said to be found in the coops. Four mild oxen have been untethered and allowed to walk along the broad iron decks — a whole drove of sheep seem quite content while licking big lumps of bay salt. Two exceedingly impertinent goats lead the cook a perfect life of misery. They steal round the galley and *will* nibble the carrots or turnips if his back is turned for one minute; and then he throws something at them and misses them; and they scuttle off laughing impudently, and flick one ear at him from a safe distance. This is the most impudent gesture I ever saw. Winking is nothing to it. The ear normally hangs down behind; the goat turns sideways to her enemy — by a little knowing cock of the head flicks one ear over one eye, and squints from behind it for half a minute — tosses her head back, skips a pace or two further off, and repeats the manœuvre. The cook is very fat and cannot run after that goat much.

"*Pernambuco, Aug.* 1.— We landed here yesterday, all well and cable sound, after a good passage. . . . I am on familiar terms with cocoa-nuts, mangoes, and bread-fruit trees, but I think I like the negresses best of anything I have seen. In turbans and loose sea-green robes, with beautiful black-brown complexions and a stately carriage, they really are a satisfaction to my eye. The weather has been windy and rainy; the

*Hooper* has to lie about a mile from the town, in an open roadstead, with the whole swell of the Atlantic driving straight on shore. The little steam launch gives all who go in her a good ducking, as she bobs about on the big rollers; and my old gymnastic practice stands me in good stead on boarding and leaving her. We clamber down a rope ladder hanging from the high stern, and then taking a rope in one hand, swing into the launch at the moment when she can contrive to steam up under us — bobbing about like an apple thrown into a tub all the while. The President of the province and his suite tried to come off to a State luncheon on board on Sunday; but the launch being rather heavily laden, behaved worse than usual, and some green seas stove in the President's hat and made him wetter than he had probably ever been in his life; so after one or two rollers, he turned back; and indeed he was wise to do so, for I don't see how he could have got on board. . . . Being fully convinced that the world will not continue to go round unless I pay it personal attention, I must run away to my work."

# CHAPTER VI

## 1869—1885

Edinburgh — Colleagues — *Farrago Vitæ* — I. The Family Circle — Fleeming and his Sons — Highland Life — The Cruise of the Steam Launch — Summer in Styria — Rustic Manners — II. The Drama — Private Theatricals — III. Sanitary Associations — The Phonograph — IV. Fleeming's Acquaintance with a Student — His late Maturity of Mind — Religion and Morality — His Love of Heroism — Taste in Literature — V. His Talk — His late Popularity — Letter from M. Trélat.

THE remaining external incidents of Fleeming's life, pleasures, honours, fresh interests, new friends, are not such as will bear to be told at any length or in the temporal order. And it is now time to lay narration by, and to look at the man he was and the life he lived, more largely.

Edinburgh, which was henceforth to be his home, is a metropolitan small town; where college professors and the lawyers of the Parliament House give the tone, and persons of leisure, attracted by educational advantages, make up much of the bulk of society. Not, therefore, an unlettered place, yet not pedantic, Edinburgh will compare favourably with much larger cities. A hard and disputatious element has been commented on by strangers: it would not touch Fleeming, who was himself regarded, even in this metropolis of disputation, as a thorny table-mate. To golf unhappily he

did not take, and golf is a cardinal virtue in the city of the winds. Nor did he become an archer of the Queen's Body-Guard, which is the Chiltern Hundreds of the distasted golfer. He did not even frequent the Evening Club, where his colleague Tait (in my day) was so punctual and so genial. So that in some ways he stood outside of the lighter and kindlier life of his new home. I should not like to say that he was generally popular; but there as elsewhere, those who knew him well enough to love him, loved him well. And he, upon his side, liked a place where a dinner party was not of necessity unintellectual, and where men stood up to him in argument.

The presence of his old classmate, Tait, was one of his early attractions to the chair; and now that Fleeming is gone again, Tait still remains, ruling and really teaching his great classes. Sir Robert Christison was an old friend of his mother's; Sir Alexander Grant, Kelland, and Sellar, were new acquaintances and highly valued; and these too, all but the last, have been taken from their friends and labours. Death has been busy in the Senatus. I will speak elsewhere of Fleeming's demeanour to his students; and it will be enough to add here that his relations with his colleagues in general were pleasant to himself.

Edinburgh, then, with its society, its university work, its delightful scenery, and its skating in the winter, was thenceforth his base of operations. But he shot meanwhile erratic in many directions: twice to America, as we have seen, on telegraph voyages; continually to London on business; often to Paris; year after year to the Highlands to shoot, to fish, to learn reels and Gae-

lic, to make the acquaintance and fall in love with the character of Highlanders; and once to Styria, to hunt chamois and dance with peasant maidens. All the while, he was pursuing the course of his electrical studies, making fresh inventions, taking up the phonograph, filled with theories of graphic representation; reading, writing, publishing, founding sanitary associations, interested in technical education, investigating the laws of metre, drawing, acting, directing private theatricals, going a long way to see an actor — a long way to see a picture; in the very bubble of the tideway of contemporary interests. And all the while he was busied about his father and mother, his wife, and in particular his sons; anxiously watching, anxiously guiding these, and plunging with his whole fund of youthfulness into their sports and interests. And all the while he was himself maturing — not in character or body, for these remained young — but in the stocked mind, in the tolerant knowledge of life and man, in pious acceptance of the universe. Here is a farrago for a chapter: here is a world of interests and activities, human, artistic, social, scientific, at each of which he sprang with impetuous pleasure, on each of which he squandered energy, the arrow drawn to the head, the whole intensity of his spirit bent, for the moment, on the momentary purpose. It was this that lent such unusual interest to his society, so that no friend of his can forget that figure of Fleeming coming charged with some new discovery: it is this that makes his character so difficult to represent. Our fathers, upon some difficult theme, would invoke the Muse; I can but appeal to the imagination of the reader. When I

dwell upon some one thing, he must bear in mind it was only one of a score; that the unweariable brain was teeming at the very time with other thoughts; that the good heart had left no kind duty forgotten.

## I

In Edinburgh, for a considerable time, Fleeming's family, to three generations, was united: Mr. and Mrs. Austin at Hailes, Captain and Mrs. Jenkin in the suburb of Merchiston, Fleeming himself in the city. It is not every family that could risk with safety such close interdomestic dealings; but in this also Fleeming was particularly favoured. Even the two extremes, Mr. Austin and the Captain, drew together. It is pleasant to find that each of the old gentlemen set a high value on the good looks of the other, doubtless also on his own; and a fine picture they made as they walked the green terrace at Hailes, conversing by the hour. What they talked of is still a mystery to those who knew them; but Mr. Austin always declared that on these occasions he learned much. To both of these families of elders, due service was paid of attention; to both, Fleeming's easy circumstances had brought joy; and the eyes of all were on the grandchildren. In Fleeming's scheme of duties, those of the family stood first; a man was first of all a child, nor did he cease to be so, but only took on added obligations, when he became in turn a father. The care of his parents was always a first thought with him, and their gratification his delight. And the care of his sons, as it was always a grave subject of study with him, and an affair never neglected,

so it brought him a thousand satisfactions. "Hard work they are," as he once wrote, "but what fit work!" And again: " O, it's a cold house where a dog is the only representative of a child!" Not that dogs were despised; we shall drop across the name of Jack, the harum-scarum Irish terrier, ere we have done; his own dog Plato went up with him daily to his lectures, and still (like other friends) feels the loss and looks visibly for the reappearance of his master; and Martin, the cat, Fleeming has himself immortalized, to the delight of Mr. Swinburne, in the columns of the *Spectator*. Indeed there was nothing in which men take interest, in which he took not some; and yet always most in the strong human bonds, ancient as the race and woven of delights and duties.

He was even an anxious father; perhaps that is the part where optimism is hardest tested. He was eager for his sons; eager for their health, whether of mind or body; eager for their education; in that, I should have thought, too eager. But he kept a pleasant face upon all things, believed in play, loved it himself, shared boyishly in theirs, and knew how to put a face of entertainment upon business, and a spirit of education into entertainment. If he was to test the progress of the three boys, this advertisement would appear in their little manuscript paper:—"Notice: The Professor of Engineering in the University of Edinburgh intends at the close of the scholastic year to hold examinations in the following subjects: (1) For boys in the fourth class of the Academy—Geometry and Algebra; (2) For boys at Mr. Henderson's school—Dictation and Recitation; (3) For boys taught exclusively by their mothers—

Arithmetic and Reading." Prizes were given; but what prize would be so conciliatory as this boyish little joke? It may read thin here; it would smack racily in the playroom. Whenever his sons "started a new fad" (as one of them writes to me) they "had only to tell him about it, and he was at once interested and keen to help." He would discourage them in nothing unless it was hopelessly too hard for them; only, if there was any principle of science involved, they must understand the principle; and whatever was attempted, that was to be done thoroughly. If it was but play, if it was but a puppet show they were to build, he set them the example of being no sluggard in play. When Frewen, the second son, embarked on the ambitious design to make an engine for a toy steamboat, Fleeming made him begin with a proper drawing—doubtless to the disgust of the young engineer; but once that foundation laid, helped in the work with unflagging gusto, "tinkering away," for hours, and assisted at the final trial "in the big bath" with no less excitement than the boy. "He would take any amount of trouble to help us," writes my correspondent. "We never felt an affair was complete till we had called him to see, and he would come at any time, in the middle of any work." There was indeed one recognized playhour, immediately after the despatch of the day's letters; and the boys were to be seen waiting on the stairs until the mail should be ready and the fun could begin. But at no other time did this busy man suffer his work to interfere with that first duty to his children; and there is a pleasant tale of the inventive Master Frewen, engaged at the time upon a toy crane, bringing to the study where his father sat at work a

half-wound reel that formed some part of his design, and observing, "Papa, you might finiss windin' this for me; I am so very busy to-day."

I put together here a few brief extracts from Fleeming's letters, none very important in itself, but all together building up a pleasant picture of the father with his sons.

"*Jan.* 15*th*, 1875.—Frewen contemplates suspending soap bubbles by silk threads for experimental purposes. I don't think he will manage that. Bernard" [the youngest] "volunteered to blow the bubbles with enthusiasm."

"*Jan.* 17*th*.—I am learning a great deal of electrostatics in consequence of the perpetual cross-examination to which I am subjected. I long for you on many grounds, but one is that I may not be obliged to deliver a running lecture on abstract points of science, subject to cross-examination by two acute students. Bernie does not cross-examine much; but if anyone gets discomfited, he laughs a sort of little silver-whistle giggle, which is trying to the unhappy blunderer."

"*May* 9*th*.—Frewen is deep in parachutes. I beg him not to drop from the top landing in one of his own making."

"*June* 6*th*, 1876.—Frewen's crank axle is a failure just at present—but he bears up."

"*June* 14*th*.—The boys enjoy their riding. It gets them whole funds of adventures. One of their caps falling off is matter for delightful reminiscences; and when a horse breaks his step, the occurrence becomes a rear, a shy, or a plunge as they talk it over. Austin, with quiet confidence, speaks of the greater pleasure in

riding a spirited horse, even if he does give a little trouble. It is the stolid brute that he dislikes. (N. B. You can still see six inches between him and the saddle when his pony trots.) I listen and sympathise and throw out no hint that their achievements are not really great."

"*June 18th.*—Bernard is much impressed by the fact that I can be useful to Frewen about the steamboat" [which the latter irrepressible inventor was making]. "He says, quite with awe, 'He would not have got on nearly so well if you had not helped him.'"

"*June 27th.*—I do not see what I could do without Austin. He talks so pleasantly and is so truly good all through."

"*July 7th.*—My chief difficulty with Austin is to get him measured for a pair of trousers. Hitherto I have failed, but I keep a stout heart and mean to succeed. Frewen the observer, in describing the paces of two horses, says, 'Polly takes twenty-seven steps to get round the school. I couldn't count Sophy, but she takes more than a hundred.'"

"*Feb. 18th,* 1877.—We all feel very lonely without you. Frewen had to come up and sit in my room for company last night and I actually kissed him, a thing that has not occurred for years. Jack, poor fellow, bears it as well as he can, and has taken the opportunity of having a fester on his foot, so he is lame and has it bathed, and this occupies his thoughts a good deal."

"*Feb. 19th.*—As to Mill, Austin has not got the list yet. I think it will prejudice him very much against Mill—but that is not my affair. Education of that kind! . . . I would as soon cram my boys with food

and boast of the pounds they had eaten, as cram them with literature."

But if Fleeming was an anxious father, he did not suffer his anxiety to prevent the boys from any manly or even dangerous pursuit. Whatever it might occur to them to try, he would carefully show them how to do it, explain the risks, and then either share the danger himself or, if that were not possible, stand aside and wait the event with that unhappy courage of the looker-on. He was a good swimmer, and taught them to swim. He thoroughly loved all manly exercises; and during their holidays, and principally in the Highlands, helped and encouraged them to excel in as many as possible—to shoot, to fish, to walk, to pull an oar, to hand, reef and steer, and to run a steam launch. In all of these, and in all parts of Highland life, he shared delightedly. He was well on to forty when he took once more to shooting, he was forty-three when he killed his first salmon, but no boy could have more single-mindedly rejoiced in these pursuits. His growing love for the Highland character, perhaps also a sense of the difficulty of the task, led him to take up at forty-one the study of Gaelic; in which he made some shadow of progress, but not much: the fastnesses of that elusive speech retaining to the last their independence. At the house of his friend Mrs. Blackburn, who plays the part of a Highland lady as to the manner born, he learned the delightful custom of kitchen dances, which became the rule at his own house and brought him into yet nearer contact with his neighbors. And thus at forty-two, he began to learn the reel; a study to which he brought his usual smiling earnestness; and the steps,

diagrammatically represented by his own hand, are before me as I write.

It was in 1879 that a new feature was added to the Highland life: a steam launch, called the *Purgle*, the Styrian corruption of Walpurga, after a friend to be hereafter mentioned. "The steam launch goes," Fleeming wrote. "I wish you had been present to describe two scenes of which she has been the occasion already: one during which the population of Ullapool, to a baby, was harnessed to her hurrahing—and the other in which the same population sat with its legs over a little pier, watching Frewen and Bernie getting up steam for the first time." The *Purgle* was got with educational intent; and it served its purpose so well, and the boys knew their business so practically, that when the summer was at an end, Fleeming, Mrs. Jenkin, Frewen the engineer, Bernard the stoker, and Kenneth Robertson, a Highland seaman, set forth in her to make the passage south. The first morning they got from Loch Broom into Gruinard bay, where they lunched upon an island; but the wind blowing up in the afternoon, with sheets of rain, it was found impossible to beat to sea; and very much in the situation of castaways upon an unknown coast, the party landed at the mouth of Gruinard river. A shooting lodge was spied among the trees; there Fleeming went; and though the master, Mr. Murray, was from home, though the two Jenkin boys were of course as black as colliers, and all the castaways so wetted through that, as they stood in the passage, pools formed about their feet and ran before them into the house, yet Mrs. Murray kindly entertained them for the

night. On the morrow, however, visitors were to arrive; there would be no room and, in so out-of-the-way a spot, most probably no food for the crew of the *Purgle;* and on the morrow about noon, with the bay white with spindrift and the wind so strong that one could scarcely stand against it, they got up steam and skulked under the land as far as Sanda Bay. Here they crept into a seaside cave, and cooked some food; but the weather now freshening to a gale, it was plain they must moor the launch where she was, and find their way overland to some place of shelter. Even to get their baggage from on board was no light business; for the dingy was blown so far to leeward every trip, that they must carry her back by hand along the beach. But this once managed, and a cart procured in the neighbourhood, they were able to spend the night in a pot-house on Ault Bea. Next day, the sea was unapproachable; but the next they had a pleasant passage to Poolewe, hugging the cliffs, the falling swell bursting close by them in the gullies, and the black scarts that sat like ornaments on the top of every stack and pinnacle looking down into the *Purgle* as she passed. The climate of Scotland had not done with them yet: for three days they lay stormstayed in Poolewe, and when they put to sea on the morning of the fourth, the sailors prayed them for God's sake not to attempt the passage. Their setting out was indeed merely tentative; but presently they had gone too far to return, and found themselves committed to double Rhu Reay with a foul wind and a cross sea. From half-past eleven in the morning until half-past five at night, they were in immediate and unceasing danger.

Upon the least mishap, the *Purgle* must either have been swamped by the seas or bulged upon the cliffs of that rude headland. Fleeming and Robertson took turns baling and steering; Mrs. Jenkin, so violent was the commotion of the boat, held on with both hands; Frewen, by Robertson's direction, ran the engine, slacking and pressing her to meet the seas; and Bernard, only twelve years old, deadly sea-sick, and continually thrown against the boiler, so that he was found next day to be covered with burns, yet kept an even fire. It was a very thankful party that sat down that evening to meat in the Hotel at Gairloch. And perhaps, although the thing was new in the family, no one was much surprised when Fleeming said grace over that meal. Thenceforward he continued to observe the form, so that there was kept alive in his house a grateful memory of peril and deliverance. But there was nothing of the muff in Fleeming; he thought it a good thing to escape death, but a becoming and a healthful thing to run the risk of it; and what is rarer, that which he thought for himself, he thought for his family also. In spite of the terrors of Rhu Reay, the cruise was persevered in and brought to an end under happier conditions.

One year, instead of the Highlands, Alt Aussee, in the Steiermark, was chosen for the holidays; and the place, the people, and the life delighted Fleeming. He worked hard at German, which he had much forgotten since he was a boy; and what is highly characteristic, equally hard at the patois, in which he learned to excel. He won a prize at a Schützen-fest; and though he hunted chamois without much success, brought down more

interesting game in the shape of the Styrian peasants, and in particular of his gillie, Joseph. This Joseph was much of a character; and his appreciations of Fleeming have a fine note of their own. The bringing up of the boys he deigned to approve of: "*fast so gut wie ein Bauer,*" was his trenchant criticism. The attention and courtly respect with which Fleeming surrounded his wife, was something of a puzzle to the philosophic gillie; he announced in the village that Mrs. Jenkin—*die silberne Frau,* as the folk had prettily named her from some silver ornaments—was a "*geborene Gräfin*" who had married beneath her; and when Fleeming explained what he called the English theory (though indeed it was quite his own) of married relations, Joseph, admiring but unconvinced, avowed it was "*gar schön.*" Joseph's cousin, Walpurga Moser, to an orchestra of clarionet and zither, taught the family the country dances, the Steierisch and the Ländler, and gained their hearts during the lessons. Her sister Loys, too, who was up at the Alp with the cattle, came down to church on Sundays, made acquaintance with the Jenkins, and must have them up to see the sunrise from her house upon the Loser, where they had supper and all slept in the loft among the hay. The Mosers were not lost sight of; Walpurga still corresponds with Mrs. Jenkin, and it was a late pleasure of Fleeming's to choose and despatch a wedding present for his little mountain friend. This visit was brought to an end by a ball in the big inn parlour; the refreshments chosen, the list of guests drawn up, by Joseph; the best music of the place in attendance; and hosts and guests in their best clothes. The ball was opened by Mrs. Jenkin dancing

Steierisch with a lordly Bauer, in grey and silver and with a plumed hat; and Fleeming followed with Walpurga Moser.

There ran a principle through all these holiday pleasures. In Styria as in the Highlands, the same course was followed: Fleeming threw himself as fully as he could into the life and occupations of the native people, studying everywhere their dances and their language, and conforming, always with pleasure, to their rustic etiquette. Just as the ball at Alt Aussee was designed for the taste of Joseph, the parting feast at Attadale was ordered in every particular to the taste of Murdoch the Keeper. Fleeming was not one of the common, so-called gentlemen, who take the tricks of their own coterie to be eternal principles of taste. He was aware, on the other hand, that rustic people dwelling in their own places follow ancient rules with fastidious precision, and are easily shocked and embarrassed by what (if they used the word) they would have to call the vulgarity of visitors from town. And he, who was so cavalier with men of his own class, was sedulous to shield the more tender feelings of the peasant; he, who could be so trying in a drawing-room, was even punctilious in the cottage. It was in all respects a happy virtue. It renewed his life, during these holidays, in all particulars. It often entertained him with the discovery of strange survivals; as when, by the orders of Murdoch, Mrs. Jenkin must publicly taste of every dish before it was set before her guests. And thus to throw himself into a fresh life and a new school of manners was a grateful exercise of Fleeming's mimetic instinct; and to the pleasures of the open air, of hardships sup-

ported, of dexterities improved and displayed, and of plain and elegant society, added a spice of drama.

## II

Fleeming was all his life a lover of the play and all that belonged to it. Dramatic literature he knew fully. He was one of the not very numerous people who can read a play: a knack, the fruit of much knowledge and some imagination, comparable to that of reading score. Few men better understood the artificial principles on which a play is good or bad; few more unaffectedly enjoyed a piece of any merit of construction. His own play was conceived with a double design; for he had long been filled with his theory of the true story of Griselda; used to gird at Father Chaucer for his misconception; and was, perhaps first of all, moved by the desire to do justice to the Marquis of Saluces, and perhaps only in the second place, by the wish to treat a story (as he phrased it) like a sum in arithmetic. I do not think he quite succeeded; but I must own myself no fit judge. Fleeming and I were teacher and taught as to the principles, disputatious rivals in the practice, of dramatic writing.

Acting had always, ever since Rachel and the Marseillaise, a particular power on him. "If I do not cry at the play," he used to say, "I want to have my money back." Even from a poor play with poor actors, he could draw pleasure. "Giacometti's *Elisabetta,*" I find him writing, "fetched the house vastly. Poor Queen Elizabeth! And yet it was a little good." And again, after a night of Salvini: "I do not suppose any

one with feelings could sit out *Othello,* if Iago and Desdemona were acted." Salvini was, in his view, the greatest actor he had seen. We were all indeed moved and bettered by the visit of that wonderful man.—"I declare I feel as if I could pray!" cried one of us, on the return from *Hamlet.*—"That is prayer," said Fleeming. W. B. Hole and I, in a fine enthusiasm of gratitude, determined to draw up an address to Salvini, did so, and carried it to Fleeming; and I shall never forget with what coldness he heard and deleted the eloquence of our draft, nor with what spirit (our vanities once properly mortified) he threw himself into the business of collecting signatures. It was his part, on the ground of his Italian, to see and arrange with the actor; it was mine to write in the *Academy* a notice of the first performance of *Macbeth.* Fleeming opened the paper, read so far, and flung it on the floor. "No," he cried, "that won't do. You were thinking of yoursélf, not of Salvini!" The criticism was shrewd as usual, but it was unfair through ignorance; it was not of myself that I was thinking, but of the difficulties of my trade which I had not well mastered. Another unalloyed dramatic pleasure which Fleeming and I shared the year of the Paris Exposition, was the *Marquis de Villemer,* that blameless play, performed by Madeleine Brohan, Delaunay, Worms, and Broisat—an actress, in such parts at least, to whom I have never seen full justice rendered. He had his fill of weeping on that occasion; and when the piece was at an end, in front of a café, in the mild midnight air, we had our fill of talk about the art of acting.

But what gave the stage so strong a hold on Fleem-

ing was an inheritance from Norwich, from Edward Barron, and from Enfield of the *Speaker*. The theatre was one of Edward Barron's elegant hobbies; he read plays, as became Enfield's son-in-law, with a good discretion; he wrote plays for his family, in which Eliza Barron used to shine in the chief parts; and later in life, after the Norwich home was broken up, his little granddaughter would sit behind him in a great armchair, and be introduced, with his stately elocution, to the world of dramatic literature. From this, in a direct line, we can deduce the charades at Claygate; and after money came, in the Edinburgh days, that private theatre which took up so much of Fleeming's energy and thought. The company — Mr. and Mrs. R. O. Carter of Colwall, W. B. Hole, Captain Charles Douglas, Mr. Kunz, Mr. Burnett, Professor Lewis Campbell, Mr. Charles Baxter, and many more — made a charming society for themselves and gave pleasure to their audience. Mr. Carter in Sir Toby Belch it would be hard to beat. Mr. Hole in broad farce, or as the herald in the *Trachiniæ*, showed true stage talent. As for Mrs. Jenkin, it was for her the rest of us existed and were forgiven; her powers were an endless spring of pride and pleasure to her husband; he spent hours hearing and schooling her in private; and when it came to the performance, though there was perhaps no one in the audience more critical, none was more moved than Fleeming. The rest of us did not aspire so high. There were always five performances and weeks of busy rehearsal; and whether we came to sit and stifle as the prompter, to be the dumb (or rather the inarticulate) recipients of Carter's dog whip in the *Taming of the Shrew*, or having earned our

spurs, to lose one more illusion in a leading part, we were always sure at least of a long and an exciting holiday in mirthful company.

In this laborious annual diversion, Fleeming's part was large. I never thought him an actor, but he was something of a mimic, which stood him in stead. Thus he had seen Got in Poirier; and his own Poirier, when he came to play it, breathed meritoriously of the model. The last part I saw him play was Triplet, and at first I thought it promised well. But alas! the boys went for a holiday, missed a train, and were not heard of at home till late at night. Poor Fleeming, the man who never hesitated to give his sons a chisel or a gun, or to send them abroad in a canoe or on a horse, toiled all day at his rehearsal, growing hourly paler, Triplet growing hourly less meritorious. And though the return of the children, none the worse for their little adventure, brought the colour back into his face, it could not restore him to his part. I remember finding him seated on the stairs in some rare moment of quiet during the subsequent performances. "Hullo, Jenkin," said I, "you look down in the mouth."—"My dear boy," said he, "haven't you heard me? I have not one decent intonation from beginning to end."

But indeed he never supposed himself an actor; took a part, when he took any, merely for convenience, as one takes a hand at whist; and found his true service and pleasure in the more congenial business of the manager. Augier, Racine, Shakespeare, Aristophanes in Hookham Frere's translation, Sophocles and Æschylus in Lewis Campbell's, such were some of the authors whom he introduced to his public. In putting these

upon the stage, he found a thousand exercises for his ingenuity and taste, a thousand problems arising which he delighted to study, a thousand opportunities to make these infinitesimal improvements which are so much in art and for the artist. Our first Greek play had been costumed by the professional costumer, with unforgetable results of comicality and indecorum: the second, the *Trachiniæ* of Sophocles, he took in hand himself, and a delightful task he made of it. His study was then in antiquarian books, where he found confusion, and on statues and bas-reliefs, where he at last found clearness; after an hour or so at the British Museum, he was able to master "the chitôn, sleeves and all"; and before the time was ripe, he had a theory of Greek tailoring at his fingers' ends, and had all the costumes made under his eye as a Greek tailor would have made them. "The Greeks made the best plays and the best statues, and were the best architects: of course, they were the best tailors, too," said he; and was never weary, when he could find a tolerant listener, of dwelling on the simplicity, the economy, the elegance both of means and effect, which made their system so delightful.

But there is another side to the stage-manager's employment. The discipline of acting is detestable; the failures and triumphs of that business appeal too directly to the vanity; and even in the course of a careful amateur performance such as ours, much of the smaller side of man will be displayed. Fleeming, among conflicting vanities and levities, played his part to my admiration. He had his own view; he might be wrong; but the performances (he would remind us) were after all his,

and he must decide. He was, in this as in all other things, an iron taskmaster, sparing not himself nor others. If you were going to do it at all, he would see that it was done as well as you were able. I have known him to keep two culprits (and one of these his wife) repeating the same action and the same two or three words for a whole weary afternoon. And yet he gained and retained warm feelings from far the most of those who fell under his domination, and particularly (it is pleasant to remember) from the girls. After the slipshod training and the incomplete accomplishments of a girls' school, there was something at first annoying, at last exciting and bracing, in this high standard of accomplishment and perseverance.

## III

It did not matter why he entered upon any study or employment, whether for amusement, like the Greek tailoring or the Highland reels, whether from a desire to serve the public as with his sanitary work, or in the view of benefiting poorer men as with his labours for technical education, he "pitched into it" (as he would have said himself) with the same headlong zest. I give in the Appendix a letter from Colonel Fergusson, which tells fully the nature of the sanitary work and of Fleeming's part and success in it. It will be enough to say here that it was a scheme of protection against the blundering of builders and the dishonesty of plumbers. Started with an eye rather to the houses of the rich, Fleeming hoped his Sanitary Associations would soon extend their sphere of usefulness and improve the

dwellings of the poor. In this hope he was disappointed; but in all other ways the scheme exceedingly prospered, associations sprang up and continue to spring up in many quarters, and wherever tried they have been found of use.

Here, then, was a serious employment; it has proved highly useful to mankind; and it was begun besides, in a mood of bitterness, under the shock of what Fleeming would so sensitively feel — the death of a whole family of children. Yet it was gone upon like a holiday jaunt. I read in Colonel Fergusson's letter that his schoolmates bantered him when he began to broach his scheme; so did I at first, and he took the banter as he always did with enjoyment, until he suddenly posed me with the question: "And now do you see any other jokes to make? Well, then," said he, "that's all right. I wanted you to have your fun out first; now we can be serious." And then with a glowing heat of pleasure, he laid his plans before me, revelling in the details, revelling in hope. It was as he wrote about the joy of electrical experiment: "What shall I compare them to? A new song? — a Greek play?" Delight attended the exercise of all his powers; delight painted the future. Of these ideal visions, some (as I have said) failed of their fruition. And the illusion was characteristic. Fleeming believed we had only to make a virtue cheap and easy, and then all would practise it; that for an end unquestionably good, men would not grudge a little trouble and a little money, though they might stumble at laborious pains and generous sacrifices. He could not believe in any resolute badness. "I cannot quite say," he wrote in his young manhood, "that I think

there is no sin or misery. This I can say: I do not remember one single malicious act done to myself. In fact it is rather awkward when I have to say the Lord's Prayer. I have nobody's trespasses to forgive." And to the point, I remember one of our discussions. I said it was a dangerous error not to admit there were bad people; he, that it was only a confession of blindness on our part, and that we probably called others bad only so far as we were wrapped in ourselves and lacking in the transmigratory forces of imagination. I undertook to describe to him three persons irredeemably bad and whom he should admit to be so. In the first case, he denied my evidence: "You cannot judge a man upon such testimony," said he. For the second, he owned it made him sick to hear the tale; but then there was no spark of malice, it was mere weakness I had described, and he had never denied nor thought to set a limit to man's weakness. At my third gentleman, he struck his colours. "Yes," said he, "I'm afraid that *is* a bad man." And then looking at me shrewdly: "I wonder if it isn't a very unfortunate thing for you to have met him." I showed him radiantly how it was the world we must know, the world as it was, not a world expurgated and prettified with optimistic rainbows. "Yes, yes," said he; "but this badness is such an easy, lazy explanation. Won't you be tempted to use it, instead of trying to understand people?"

In the year 1878, he took a passionate fancy for the phonograph: it was a toy after his heart, a toy that touched the skirts of life, art, and science, a toy prolific of problems and theories. Something fell to be done for a University Cricket Ground Bazaar. "And the

thought struck him," Mr. Ewing writes to me, "to exhibit Edison's phonograph, then the very newest scientific marvel. The instrument itself was not to be purchased — I think no specimen had then crossed the Atlantic — but a copy of the *Times* with an account of it was at hand, and by the help of this we made a phonograph which to our great joy talked, and talked, too, with the purest American accent. It was so good that a second instrument was got ready forthwith. Both were shown at the Bazaar: one by Mrs. Jenkin to people willing to pay half a crown for a private view and the privilege of hearing their own voices, while Jenkin, perfervid as usual, gave half-hourly lectures on the other in an adjoining room — I, as his lieutenant, taking turns. The thing was in its way a little triumph. A few of the visitors were deaf, and hugged the belief that they were the victims of a new kind of fancy-fair swindle. Of the others, many who came to scoff remained to take raffle tickets; and one of the phonographs was finally disposed of in this way, falling, by a happy freak of the ballot-box, into the hands of Sir William Thomson." The other remained in Fleeming's hands, and was a source of infinite occupation. Once it was sent to London, "to bring back on the tinfoil the tones of a lady distinguished for clear vocalisations; at another time Sir Robert Christison was brought in to contribute his powerful bass"; and there scarcely came a visitor about the house, but he was made the subject of experiment. The visitors, I am afraid, took their parts lightly: Mr. Hole and I, with unscientific laughter, commemorating various shades of Scotch accent, or proposing to "teach the poor dumb animal to swear."

But Fleeming and Mr. Ewing, when we butterflies were gone, were laboriously ardent. Many thoughts that occupied the later years of my friend were caught from the small utterance of that toy. Thence came his inquiries into the roots of articulate language and the foundations of literary art; his papers on vowel sounds, his papers in the *Saturday Review* upon the laws of verse, and many a strange approximation, many a just note, thrown out in talk and now forgotten. I pass over dozens of his interests, and dwell on this trifling matter of the phonograph, because it seems to me that it depicts the man. So, for Fleeming, one thing joined into another, the greater with the less. He cared not where it was he scratched the surface of the ultimate mystery — in the child's toy, in the great tragedy, in the laws of the tempest, or in the properties of energy or mass — certain that whatever he touched, it was a part of life — and however he touched it, there would flow for his happy constitution interest and delight. "All fables have their morals," says Thoreau, "but the innocent enjoy the story." There is a truth represented for the imagination in these lines of a noble poem, where we are told that, in our highest hours of visionary clearness, we can but

> see the children sport upon the shore
> And hear the mighty waters rolling evermore.

To this clearness Fleeming had attained; and although he heard the voice of the eternal seas and weighed its message, he was yet able, until the end of his life, to sport upon these shores of death and mystery with the gaiety and innocence of children.

## IV

It was as a student that I first knew Fleeming, as one of that modest number of young men who sat under his ministrations in a soul-chilling class-room at the top of the University buildings. His presence was against him as a professor: no one, least of all students, would have been moved to respect him at first sight: rather short in stature, markedly plain, boyishly young in manner, cocking his head like a terrier with every mark of the most engaging vivacity and readiness to be pleased, full of words, full of paradox, a stranger could scarcely fail to look at him twice, a man thrown with him in a train could scarcely fail to be engaged by him in talk, but a student would never regard him as academical. Yet he had that fibre in him that order always existed in his class-room. I do not remember that he ever addressed me in language; at the least sign of unrest, his eye would fall on me and I was quelled. Such a feat is comparatively easy in a small class; but I have misbehaved in smaller classes and under eyes more Olympian than Fleeming Jenkin's. He was simply a man from whose reproof one shrank; in manner the least buckrammed of mankind, he had, in serious moments, an extreme dignity of goodness. So it was that he obtained a power over the most insubordinate of students, but a power of which I was myself unconscious. I was inclined to regard any professor as a joke, and Fleeming as a particularly good joke, perhaps the broadest in the vast pleasantry of my curriculum. I was not able to follow his lectures; I somehow dared not misconduct myself,

as was my customary solace; and I refrained from attending. This brought me at the end of the session into a relation with my contemned professor that completely opened my eyes. During the year, bad student as I was, he had shown a certain leaning to my society; I had been to his house, he had asked me to take a humble part in his theatricals; I was a master in the art of extracting a certificate even at the cannon's mouth; and I was under no apprehension. But when I approached Fleeming, I found myself in another world; he would have naught of me. "It is quite useless for *you* to come to me, Mr. Stevenson. There may be doubtful cases, there in no doubt about yours. You have simply *not* attended my class." The document was necessary to me for family considerations; and presently I stooped to such pleadings and rose to such adjurations, as made my ears burn to remember. He was quite unmoved; he had no pity for me. "You are no fool," said he, "and you chose your course." I showed him that he had misconceived his duty, that certificates were things of form, attendance a matter of taste. Two things, he replied, had been required for graduation, a certain competency proved in the final trials and a certain period of genuine training proved by certificate; if he did as I desired, not less than if he gave me hints for an examination, he was aiding me to steal a degree. "You see, Mr. Stevenson, these are the laws and I am here to apply them," said he. I could not say but that this view was tenable, though it was new to me; I changed my attack: it was only for my father's eye that I required his signature, it need never go to the Senatus, I had already certificates

enough to justify my year's attendance. "Bring them to me; I cannot take your word for that," said he. "Then I will consider." The next day I came charged with my certificates, a humble assortment. And when he had satisfied himself, "Remember," said he, "that I can promise nothing, but I will try to find a form of words." He did find one, and I am still ashamed when I think of his shame in giving me that paper. He made no reproach in speech, but his manner was the more eloquent; it told me plainly what a dirty business we were on; and I went from his presence, with my certificate indeed in my possession, but with no answerable sense of triumph. That was the bitter beginning of my love for Fleeming; I never thought lightly of him afterwards.

Once, and once only, after our friendship was truly founded, did we come to a considerable difference. It was, by the rules of poor humanity, my fault and his. I had been led to dabble in society journalism; and this coming to his ears, he felt it like a disgrace upon himself. So far he was exactly in the right; but he was scarce happily inspired when he broached the subject at his own table and before guests who were strangers to me. It was the sort of error he was always ready to repent, but always certain to repeat; and on this occasion he spoke so freely that I soon made an excuse and left the house with the firm purpose of returning no more. About a month later, I met him at dinner at a common friend's. "Now," said he, on the stairs, "I engage you—like a lady to dance—for the end of the evening. You have no right to quarrel with me and not give me a chance." I have often said and thought

that Fleeming had no tact; he belied the opinion then. I remember perfectly how, so soon as we could get together, he began his attack: "You may have grounds of quarrel with me; you have none against Mrs. Jenkin; and before I say another word, I want you to promise you will come to *her* house as usual." An interview thus begun could have but one ending: if the quarrel were the fault of both, the merit of the reconciliation was entirely Fleeming's.

When our intimacy first began, coldly enough, accidentally enough on his part, he had still something of the Puritan, something of the inhuman narrowness of the good youth. It fell from him slowly, year by year, as he continued to ripen, and grow milder, and understand more generously the mingled characters of men. In the early days he once read me a bitter lecture; and I remember leaving his house in a fine spring afternoon, with the physical darkness of despair upon my eyesight. Long after he made me a formal retraction of the sermon and a formal apology for the pain he had inflicted; adding drolly, but truly, "You see, at that time I was so much younger than you!" And yet even in those days there was much to learn from him; and above all his fine spirit of piety, bravely and trustfully accepting life, and his singular delight in the heroic.

His piety was, indeed, a thing of chief importance. His views (as they are called) upon religious matters varied much: and he could never be induced to think them more or less than views. "All dogma is to me mere form," he wrote; "dogmas are mere blind struggles to express the inexpressible. I cannot conceive

that any single proposition whatever in religion is true in the scientific sense: and yet all the while I think the religious view of the world is the most true view. Try to separate from the mass of their statements that which is common to Socrates, Isaiah, David, St. Bernard, the Jansenists, Luther, Mahomet, Bunyan—yes, and George Eliot: of course you do not believe that this something could be written down in a set of propositions like Euclid, neither will you deny that there is something common and this something very valuable. . . . I shall be sorry if the boys ever give a moment's thought to the question of what community they belong to—I hope they will belong to the great community." I should observe that as time went on his conformity to the church in which he was born grew more complete, and his views drew nearer the conventional. "The longer I live, my dear Louis," he wrote but a few months before his death, "the more convinced I become of a direct care by God—which is reasonably impossible—but there it is." And in his last year he took the communion.

But at the time when I fell under his influence, he stood more aloof; and this made him the more impressive to a youthful atheist. He had a keen sense of language and its imperial influence on men; language contained all the great and sound metaphysics, he was wont to say; and a word once made and generally understood, he thought a real victory of man and reason. But he never dreamed it could be accurate, knowing that words stand symbol for the indefinable. I came to him once with a problem which had puzzled me out of measure: what is a cause? why out of so many innumerable millions of conditions, all necessary, should

one be singled out and ticketed "the cause"? "You do not understand," said he. "A cause is the answer to a question: it designates that condition which I happen to know and you happen not to know." It was thus, with partial exception of the mathematical, that he thought of all means of reasoning: they were in his eyes but means of communication, so to be understood, so to be judged, and only so far to be credited. The mathematical he made, I say, exception of: number and measure he believed in to the extent of their significance, but that significance, he was never weary of reminding you, was slender to the verge of nonentity. Science was true, because it told us almost nothing. With a few abstractions it could deal, and deal correctly; conveying honestly faint truths. Apply its means to any concrete fact of life, and this high dialect of the wise became a childish jargon.

Thus the atheistic youth was met at every turn by a scepticism more complete than his own, so that the very weapons of the fight were changed in his grasp to swords of paper. Certainly the church is not right, he would argue, but certainly not the anti-church either. Men are not such fools as to be wholly in the wrong, nor yet are they so placed as to be ever wholly in the right. Somewhere, in mid air between the disputants, like hovering Victory in some design of a Greek battle, the truth hangs undiscerned. And in the meanwhile what matter these uncertainties? Right is very obvious; a great consent of the best of mankind, a loud voice within us (whether of God, or whether by inheritance, and in that case still from God), guide and command us in the path of duty. He saw life very

simple; he did not love refinements; he was a friend to much conformity in unessentials. For (he would argue) it is in this life as it stands about us, that we are given our problem; the manners of the day are the colours of our palette, they condition, they constrain us; and a man must be very sure he is in the right, must (in a favourite phrase of his) be "either very wise or very vain," to break with any general consent in ethics. I remember taking his advice upon some point of conduct. "Now," he said, "how do you suppose Christ would have advised you?" and when I had answered that he would not have counselled me anything unkind or cowardly, "No," he said, with one of his shrewd strokes at the weakness of his hearer, "nor anything amusing." Later in life, he made less certain in the field of ethics. "The old story of the knowledge of good and evil is a very true one," I find him writing; only (he goes on) "the effect of the original dose is much worn out, leaving Adam's descendants with the knowledge that there is such a thing — but uncertain where." His growing sense of this ambiguity made him less swift to condemn, but no less stimulating in counsel. "You grant yourself certain freedoms. Very well," he would say, "I want to see you pay for them some other way. You positively cannot do this: then there positively must be something else that you can do, and I want to see you find that out and do it." Fleeming would never suffer you to think that you were living, if there were not, somewhere in your life, some touch of heroism, to do or to endure.

This was his rarest quality. Far on in middle age, when men begin to lie down with the bestial goddesses,

Comfort and Respectability, the strings of his nature still sounded as high a note as a young man's. He loved the harsh voice of duty like a call to battle. He loved courage, enterprise, brave natures, a brave word, an ugly virtue; everything that lifts us above the table where we eat or the bed we sleep upon. This with no touch of the motive-monger or the ascetic. He loved his virtues to be practical, his heroes to be great eaters of beef; he loved the jovial Heracles, loved the astute Odysseus; not the Robespierres and Wesleys. A fine buoyant sense of life and of man's unequal character ran through all his thoughts. He could not tolerate the spirit of the pickthank; being what we are, he wished us to see others with a generous eye of admiration, not with the smallness of the seeker after faults. If there shone anywhere a virtue, no matter how incongruously set, it was upon the virtue we must fix our eyes. I remember having found much entertainment in Voltaire's *Saül*, and telling him what seemed to me the drollest touches. He heard me out, as usual when displeased, and then opened fire on me with red-hot shot. To belittle a noble story was easy; it was not literature, it was not art, it was not morality; there was no sustenance in such a form of jesting, there was (in his favourite phrase) "no nitrogenous food" in such literature. And then he proceeded to show what a fine fellow David was; and what a hard knot he was in about Bathsheba, so that (the initial wrong committed) honour might well hesitate in the choice of conduct; and what owls those people were who marvelled because an Eastern tyrant had killed Uriah, instead of marvelling that he had not killed the prophet also.

"Now if Voltaire had helped me to feel that," said he, "I could have seen some fun in it." He loved the comedy which shows a hero human, and yet leaves him a hero, and the laughter which does not lessen love.

It was this taste for what is fine in human-kind, that ruled his choice in books. These should all strike a high note, whether brave or tender, and smack of the open air. The noble and simple presentation of things noble and simple, that was the "nitrogenous food" of which he spoke so much, which he sought so eagerly, enjoyed so royally. He wrote to an author, the first part of whose story he had seen with sympathy, hoping that it might continue in the same vein. "That this may be so," he wrote, "I long with the longing of David for the water of Bethlehem. But no man need die for the water a poet can give, and all can drink it to the end of time, and their thirst be quenched and the pool never dry — and the thirst and the water are both blessed." It was in the Greeks particularly that he found this blessed water; he loved "a fresh air" which he found "about the Greek things even in translations"; he loved their freedom from the mawkish and the rancid. The tale of David in the Bible, the *Odyssey,* Sophocles, Æschylus, Shakespeare, Scott; old Dumas in his chivalrous note; Dickens rather than Thackeray, and the *Tale of Two Cities* out of Dickens: such were some of his preferences. To Ariosto and Boccaccio he was always faithful; *Burnt Njal* was a late favourite; and he found at least a passing entertainment in the *Arcadia* and the *Grand Cyrus.* George Eliot he outgrew, finding her latterly only sawdust in the mouth; but her influence, while it lasted, was great, and must

have gone some way to form his mind. He was easily set on edge, however, by didactic writing; and held that books should teach no other lesson but what "real life would teach, were it as vividly presented." Again, it was the thing made that took him, the drama in the book; to the book itself, to any merit of the making, he was long strangely blind. He would prefer the *Agamemnon* in the prose of Mr. Buckley, ay, to Keats. But he was his mother's son, learning to the last. He told me one day that literature was not a trade; that it was no craft; that the professed author was merely an amateur with a door-plate. "Very well," said I, "the first time you get a proof, I will demonstrate that it is as much a trade as bricklaying, and that you do not know it." By the very next post, a proof came. I opened it with fear; for he was indeed, as the reader will see by these volumes, a formidable amateur; always wrote brightly, because he always thought trenchantly; and sometimes wrote brilliantly, as the worst of whistlers may sometimes stumble on a perfect intonation. But it was all for the best in the interests of his education; and I was able, over that proof, to give him a quarter of an hour such as Fleeming loved both to give and to receive. His subsequent training passed out of my hands into those of our common friend, W. E. Henley. "Henley and I," he wrote, "have fairly good times wigging one another for not doing better. I wig him because he won't try to write a real play, and he wigs me because I can't try to write English." When I next saw him, he was full of his new acquisitions. "And yet I have lost something too," he said regretfully. "Up to now Scott seemed to me quite perfect, he was

all I wanted. Since I have been learning this confounded thing, I took up one of the novels, and a great deal of it is both careless and clumsy."

## V

He spoke four languages with freedom, not even English with any marked propriety. What he uttered was not so much well said, as excellently acted: so we may hear every day the inexpressive language of a poorly-written drama assume character and colour in the hands of a good player. No man had more of the *vis comica* in private life; he played no character on the stage, as he could play himself among his friends. It was one of his special charms; now when the voice is silent and the face still, it makes it impossible to do justice to his power in conversation. He was a delightful companion to such as can bear bracing weather; not to the very vain; not to the owlishly wise, who cannot have their dogmas canvassed; not to the painfully refined, whose sentiments become articles of faith. The spirit in which he could write that he was "much revived by having an opportunity of abusing Whistler to a knot of his special admirers," is a spirit apt to be misconstrued. He was not a dogmatist, even about Whistler. "The house is full of pretty things," he wrote, when on a visit; "but Mrs. ——'s taste in pretty things has one very bad fault: it is not my taste." And that was the true attitude of his mind; but these eternal differences it was his joy to thresh out and wrangle over by the hour. It was no wonder if he loved the Greeks; he was in many ways a Greek himself; he

should have been a sophist and met Socrates; he would have loved Socrates, and done battle with him staunchly and manfully owned his defeat; and the dialogue, arranged by Plato, would have shown even in Plato's gallery. He seemed in talk aggressive, petulant, full of a singular energy; as vain you would have said as a peacock, until you trod on his toes, and then you saw that he was at least clear of all the sicklier elements of vanity. Soundly rang his laugh at any jest against himself. He wished to be taken, as he took others, for what was good in him without dissimulation of the evil, for what was wise in him without concealment of the childish. He hated a draped virtue, and despised a wit on its own defence. And he drew (if I may so express myself) a human and humorous portrait of himself with all his defects and qualities, as he thus enjoyed in talk the robust sports of the intelligence; giving and taking manfully, always without pretence, always with paradox, always with exuberant pleasure; speaking wisely of what he knew, foolishly of what he knew not; a teacher, a learner, but still combative; picking holes in what was said even to the length of captiousness, yet aware of all that was said rightly; jubilant in victory, delighted by defeat: a Greek sophist, a British schoolboy.

Among the legends of what was once a very pleasant spot, the old Savile Club, not then divorced from Savile Row, there are many memories of Fleeming. He was not popular at first, being known simply as "the man who dines here and goes up to Scotland"; but he grew at last, I think, the most generally liked of all the members. To those who truly knew and loved him, who

had tasted the real sweetness of his nature, Fleeming's porcupine ways had always been a matter of keen regret. They introduced him to their own friends with fear; sometimes recalled the step with mortification. It was not possible to look on with patience while a man so lovable thwarted love at every step. But the course of time and the ripening of his nature brought a cure. It was at the Savile that he first remarked a change; it soon spread beyond the walls of the club. Presently I find him writing: "Will you kindly explain what has happened to me? All my life I have talked a good deal, with the almost unfailing result of making people sick of the sound of my tongue. It appeared to me that I had various things to say, and I had no malevolent feelings, but nevertheless the result was that expressed above. Well, lately some change has happened. If I talk to a person one day, they must have me the next. Faces light up when they see me.—'Ah, I say, come here,'—'come and dine with me.' It's the most preposterous thing I ever experienced. It is curiously pleasant. You have enjoyed it all your life, and therefore cannot conceive how bewildering a burst of it is for the first time at forty-nine." And this late sunshine of popularity still further softened him. He was a bit of a porcupine to the last, still shedding darts; or rather he was to the end a bit of a schoolboy, and must still throw stones; but the essential toleration that underlay his disputatiousness, and the kindness that made of him a tender sicknurse and a generous helper, shone more conspicuously through. A new pleasure had come to him; and as with all sound natures, he was bettered by the pleasure.

I can best show Fleeming in this later stage by quoting from a vivid and interesting letter of M. Émile Trélat's. Here, admirably expressed, is how he appeared to a friend of another nation, whom he encountered only late in life. M. Trélat will pardon me if I correct, even before I quote him; but what the Frenchman supposed to flow from some particular bitterness against France, was only Fleeming's usual address. Had M. Trélat been Italian, Italy would have fared as ill; and yet Italy was Fleeming's favourite country.

Vous savez comment j'ai connu Fleeming Jenkin ! C'était en Mai 1878. Nous étions tous deux membres du jury de l'Exposition Universelle. On n'avait rien fait qui vaille à la première séance de notre classe, qui avait eu lieu le matin. Tout le monde avait parlé et reparlé pour ne rien dire. Cela durait depuis huit heures ; il était midi. Je demandai la parole pour une motion d'ordre, et je proposai que la séance fut levée à la condition que chaque membre français *emportât* à déjeuner un juré étranger. Jenkin applaudit. "Je vous emmène déjeuner," lui criai-je. "Je veux bien." . . . Nous partîmes ; en chemin nous vous rencontrions ; il vous présente et nous allons déjeuner tous trois auprès du Trocadéro.

Et, depuis ce temps, nous avons été de vieux amis. Non seulement nous passions nos journées au jury, où nous étions toujours ensemble, côte-à-côte. Mais nos habitudes s'étaient faites telles que, non contents de déjeuner en face l'un de l'autre, je le ramenais dîner presque tous les jours chez moi. Cela dura une quinzaine : puis il fut rappelé en Angleterre. Mais il revint, et nous fîmes encore une bonne étape de vie intellectuelle, morale et philosophique. Je crois qu'il me rendait déjà tout ce que j'éprouvais de sympathie et d'estime, et que je ne fus pas pour rien dans son retour à Paris.

Chose singulière ! nous nous étions attachés l'un à l'autre par les sous-entendus bien plus que par la matière de nos conversations. À vrai dire, nous étions presque toujours en discussion ; et il nous arrivait de nous rire au nez l'un et l'autre pendant des heures, tant nous nous éton-

nions réciproquement de la diversité de nos points de vue. Je le trouvais si Anglais, et il me trouvait si Français ! Il était si franchement révolté de certaines choses qu'il voyait chez nous, et je comprenais si mal certaines choses qui se passaient chez vous ! Rien de plus intéressant que ces contacts qui étaient des contrastes, et que ces rencontres d'idées qui étaient des choses ; rien de si attachant que les échappées de cœur ou d'esprit auxquelles ces petits conflits donnaient à tout moment cours. C'est dans ces conditions que, pendant son séjour à Paris en 1878, je conduisis un peu partout mon nouvel ami. Nous allâmes chez Madame Edmond Adam, où il vit passer beaucoup d'hommes politiques avec lesquels il causa. Mais c'est chez les ministres qu'il fut intéressé. Le moment était, d'ailleurs, curieux en France. Je me rappelle que, lorsque je le présentai au Ministre du Commerce, il fit cette spirituelle répartie : " C'est la seconde fois que je viens en France sous la République. La première fois, c'était en 1848, elle s'était coiffée de travers : je suis bien heureux de saluer aujourd'hui votre excellence, quand elle a mis son chapeau droit." Une fois je le menai voir couronner la Rosière de Nanterre. Il y suivit les cérémonies civiles et religieuses; il y assista au banquet donné par le Maire; il y vit notre De Lesseps, auquel il porta un toast. Le soir, nous revînmes tard à Paris; il faisait chaud; nous étions un peu fatigués; nous entrâmes dans un des rares cafés encore ouverts. Il devint silencieux.— " N'êtes-vous pas content de votre journée ? " lui dis-je.— " O, si ! mais je réfléchis, et je me dis que vous ètes un peuple gai — tous ces braves gens étaient gais aujourd'hui. C'est une vertu, la gaieté, et vous l'avez en France, cette vertu ! " Il me disait cela mélancoliquement; et c'était la première fois que je lui entendais faire une louange adressée à la France. . . . Mais il ne faut pas que vous voyiez là une plainte de ma part. Je serais un ingrat si je me plaignais; car il me disait souvent : " Quel bon Français vous faites ! " Et il m'aimait à cause de cela, quoiqu'il semblât n'aimer pas la France. C'était là un trait de son originalité. Il est vrai qu'il s'en tirait en disant que je ne ressemblai pas à mes compatriotes, ce à quoi il ne connaissait rien ! — Tout cela était fort curieux ; car, moi-même, je l'aimais quoiqu'il en eût à mon pays !

En 1879 il amena son fils Austin à Paris. J'attirai celui-ci. Il déjeunait avec mois deux fois par semaine. Je lui montrai ce qu'était l'intimité française en le tutoyant paternellement. Cela reserra beaucoup nos liens d'intimité avec Jenkin. . . . Je fis inviter mon ami au con-

grès de l'*Association française pour l'avancement des sciences,* qui se tenait à Rheims en 1880. Il y vint. J'eus le plaisir de lui donner la parole dans la section du génie civil et militaire, que je présidais. Il y fit une très intéressante communication, qui me montrait une fois de plus l'originalité de ses vues et la sûreté de sa science. C'est à l'issue de ce congrès que je passai lui faire visite à Rochefort, où je le trouvai installé en famille et où je présentai pour la première fois mes hommages à son éminente compagne. Je le vis là sous un jour nouveau et touchant pour moi. Madame Jenkin, qu'il entourait si galamment, et ses deux jeunes fils donnaient encore plus de relief à sa personne. J'emportai des quelques heures que je passai à côté de lui dans ce charmant paysage un souvenir ému.

J'étais allé en Angleterre en 1882 sans pouvoir gagner Edimbourg. J'y retournai en 1883 avec la commission d'assainissement de la ville de Paris, dont je faisais partie. Jenkin me rejoignit. Je le fis entendre par mes collègues; car il était fondateur d'une société de salubrité. Il eut un grand succès parmi nous. Mais ce voyage me restera toujours en mémoire parce que c'est là que se fixa définitivement notre forte amitié. Il m'invita un jour à dîner à son club et au moment de me faire asseoir à côté de lui, il me retint et me dit : "Je voudrais vous demander de m'accorder quelque chose. C'est mon sentiment que nos relations ne peuvent pas se bien continuer si vous ne me donnez pas la permission de vous tutoyer. Voulez-vous que nous nous tutoyions ?" Je lui pris les mains et je lui dis qu'une pareille proposition venant d'un Anglais, et d'un Anglais de sa haute distinction, c'était une victoire, dont je serais fier toute ma vie. Et nous commencions à user de cette nouvelle forme dans nos rapports. Vous savez avec quelle finesse il parlait le français : comme il en connaissait tous les tours, comme il jouait avec ses difficultés, et même avec ses petites gamineries. Je crois qu'il a été heureux de pratiquer avec moi ce tutoiement, qui ne s'adapte pas à l'anglais, et qui est si français. Je ne puis vous peindre l'étendue et la variété de nos conversations de la soirée. Mais ce que je puis vous dire, c'est que, sous la caresse du *tu*, nos idées se sont élevées. Nous avions toujours beaucoup ri ensemble; mais nous n'avions jamais laissé des banalités s'introduire dans nos échanges de pensées. Ce soir-là, notre horizon intellectuel s'est élargi, et nous y avons poussé des reconnaissances profondes et lointaines. Après avoir vivement causé à table, nous avons longuement causé au salon ; et nous nous séparions le soir

à Trafalgar Square, après avoir longé les trottoirs, stationné aux coins des rues et deux fois rebroussé chemin en nous reconduisant l'un l'autre. Il était près d'une heure du matin ! Mais quelle belle passe d'argumentation, quels beaux échanges de sentiments, quelles fortes confidences patriotiques nous avions fournies ! J'ai compris ce soir-là que Jenkin ne détestait pas la France, et je lui serrai fort les mains en l'embrassant. Nous nous quittions aussi amis qu'on puisse l'être ; et notre affection s'était par lui étendue et comprise dans un *tu* français.

## CHAPTER VII

### 1875 — 1885

Mrs. Jenkin's Illness — Captain Jenkin — The Golden Wedding — Death of Uncle John — Death of Mr. and Mrs. Austin — Illness and Death of the Captain — Death of Mrs. Jenkin — Effect on Fleeming — Telpherage — The End.

And now I must resume my narrative for that melancholy business that concludes all human histories. In January of the year 1875, while Fleeming's sky was still unclouded, he was reading Smiles. "I read my engineers' lives steadily," he writes, "but find biographies depressing. I suspect one reason to be that misfortunes and trials can be graphically described, but happiness and the causes of happiness either cannot be or are not. A grand new branch of literature opens to my view: a drama in which people begin in a poor way and end, after getting gradually happier, in an ecstasy of enjoyment. The common novel is not the thing at all. It gives struggle followed by relief. I want each act to close on a new and triumphant happiness, which has been steadily growing all the while. This is the real antithesis of tragedy, where things get blacker and blacker and end in hopeless woe. Smiles has not grasped my grand idea, and only shows a bitter struggle followed by a little respite before death. Some feeble critic might say my new idea was not true to nature. I'm sick of this old-fashioned notion of art. Hold a mirror

up, indeed! Let's paint a picture of how things ought to be and hold that up to nature, and perhaps the poor old woman may repent and mend her ways." The "grand idea" might be possible in art; not even the ingenuity of nature could so round in the actual life of any man. And yet it might almost seem to fancy that she had read the letter and taken the hint; for to Fleeming the cruelties of fate were strangely blended with tenderness, and when death came, it came harshly to others, to him not unkindly.

In the autumn of that same year 1875, Fleeming's father and mother were walking in the garden of their house at Merchiston, when the latter fell to the ground. It was thought at the time to be a stumble; it was in all likelihood a premonitory stroke of palsy. From that day, there fell upon her an abiding panic fear; that glib, superficial part of us that speaks and reasons could allege no cause, science itself could find no mark of danger, a son's solicitude was laid at rest; but the eyes of the body saw the approach of a blow, and the consciousness of the body trembled at its coming. It came in a moment; the brilliant, spirited old lady leapt from her bed, raving. For about six months, this stage of her disease continued with many painful and many pathetic circumstances; her husband who tended her, her son who was unwearied in his visits, looked for no change in her condition but the change that comes to all. "Poor mother," I find Fleeming writing, "I cannot get the tones of her voice out of my head. . . . I may have to bear this pain for a long time; and so I am bearing it and sparing myself whatever pain seems useless. Mercifully I do sleep, I am so weary that I

must sleep." And again later: "I could do very well, if my mind did not revert to my poor mother's state whenever I stop attending to matters immediately before me." And the next day: "I can never feel a moment's pleasure without having my mother's suffering recalled by the very feeling of happiness. A pretty, young face recalls hers by contrast—a careworn face recalls it by association. I tell you, for I can speak to no one else; but do not suppose that I wilfully let my mind dwell on sorrow."

In the summer of the next year, the frenzy left her; it left her stone deaf and almost entirely aphasic, but with some remains of her old sense and courage. Stoutly she set to work with dictionaries, to recover her lost tongues; and had already made notable progress, when a third stroke scattered her acquisitions. Thenceforth, for nearly ten years, stroke followed upon stroke, each still further jumbling the threads of her intelligence, but by degrees so gradual and with such partiality of loss and of survival, that her precise state was always and to the end a matter of dispute. She still remembered her friends: she still loved to learn news of them upon the slate; she still read and marked the list of the subscription library; she still took an interest in the choice of a play for the theatricals, and could remember and find parallel passages; but alongside of these surviving powers, were lapses as remarkable, she misbehaved like a child, and a servant had to sit with her at table. To see her so sitting, speaking with the tones of a deaf mute not always to the purpose, and to remember what she had been, was a moving appeal to all who knew her. Such was the pathos of these two old people in

their affliction, that even the reserve of cities was melted and the neighbours vied in sympathy and kindness. Where so many were more than usually helpful, it is hard to draw distinctions; but I am directed and I delight to mention in particular the good Dr. Joseph Bell, Mr. Thomas, and Mr. Archibald Constable with both their wives, the Rev. Mr. Belcombe (of whose good heart and taste I do not hear for the first time — the news had come to me by way of the Infirmary), and their next-door neighbour, unwearied in service, Miss Hannah Mayne. Nor should I omit to mention that John Ruffini continued to write to Mrs. Jenkin till his own death, and the clever lady known to the world as Vernon Lee until the end: a touching, a becoming attention to what was only the wreck and survival of their brilliant friend.

But he to whom this affliction brought the greatest change was the Captain himself. What was bitter in his lot, he bore with unshaken courage; only once, in these ten years of trial, has Mrs. Fleeming Jenkin seen him weep; for the rest of the time his wife — his commanding officer, now become his trying child — was served not with patience alone, but with a lovely happiness of temper. He had belonged all his life to the ancient, formal, speech-making, compliment-presenting school of courtesy; the dictates of this code partook in his eyes of the nature of a duty; and he must now be courteous for two. Partly from a happy illusion, partly in a tender fraud, he kept his wife before the world as a still active partner. When he paid a call, he would have her write "with love" upon a card; or if that (at the moment) was too much he would go

armed with a bouquet and present it in her name. He even wrote letters for her to copy and sign: an innocent substitution, which may have caused surprise to Ruffini or to Vernon Lee, if they ever received, in the hand of Mrs. Jenkin, the very obvious reflections of her husband. He had always adored this wife whom he now tended and sought to represent in correspondence: it was now, if not before, her turn to repay the compliment; mind enough was left her to perceive his unwearied kindness; and as her moral qualities seemed to survive quite unimpaired, a childish love and gratitude were his reward. She would interrupt a conversation to cross the room and kiss him. If she grew excited (as she did too often) it was his habit to come behind her chair and pat her shoulder; and then she would turn round, and clasp his hand in hers, and look from him to her visitor with a face of pride and love; and it was at such moments only that the light of humanity revived in her eyes. It was hard for any stranger, it was impossible for any that loved them, to behold these mute scenes, to recall the past, and not to weep. But to the Captain, I think it was all happiness. After these so long years, he had found his wife again; perhaps kinder than ever before; perhaps now on a more equal footing; certainly, to his eyes, still beautiful. And the call made on his intelligence had not been made in vain. The merchants of Aux Cayes, who had seen him tried in some "counter-revolution" in 1845, wrote to the consul of his "able and decided measures," "his cool, steady judgment and discernment" with admiration; and of himself, as "a credit and an ornament to H. M. Naval Service." It is plain he must have sunk in all his

powers, during the years when he was only a figure, and often a dumb figure, in his wife's drawing-room; but with this new term of service, he brightened visibly. He showed tact and even invention in managing his wife, guiding or restraining her by the touch, holding family worship so arranged that she could follow and take part in it. He took (to the world's surprise) to reading — voyages, biographies, Blair's *Sermons*, even (for her letter's sake) a work of Vernon Lee's, which proved, however, more than he was quite prepared for. He shone more, in his remarkable way, in society; and twice he had a little holiday to Glenmorven, where, as may be fancied, he was the delight of the Highlanders. One of his last pleasures was to arrange his dining-room. Many and many a room (in their wandering and thriftless existence) had he seen his wife furnish "with exquisite taste" and perhaps with "considerable luxury": now it was his turn to be the decorator. On the wall he had an engraving of Lord Rodney's action, showing the *Prothée*, his father's ship, if the reader recollects; on either side of this on brackets, his father's sword, and his father's telescope, a gift from Admiral Buckner, who had used it himself during the engagement; higher yet, the head of his grandson's first stag, portraits of his son and his son's wife, and a couple of old Windsor jugs from Mrs. Buckner's. But his simple trophy was not yet complete; a device had to be worked and framed and hung below the engraving; and for this he applied to his daughter-in-law: "I want you to work me something, Annie. An anchor at each side — an anchor — stands for an old sailor, you know — stands for hope, you know — an anchor at each side,

and in the middle THANKFUL." It is not easy, on any system of punctuation, to represent the Captain's speech. Yet I hope there may shine out of these facts, even as there shone through his own troubled utterance, some of the charm of that delightful spirit.

In 1881, the time of the golden wedding came round for that sad and pretty household. It fell on a Good Friday, and its celebration can scarcely be recalled without both smiles and tears. The drawing-room was filled with presents and beautiful bouquets; these, to Fleeming and his family, the golden bride and bridegroom displayed with unspeakable pride, she so painfully excited that the guests feared every moment to see her stricken afresh, he guiding and moderating her with his customary tact and understanding, and doing the honours of the day with more than his usual delight. Thence they were brought to the dining-room, where the Captain's idea of a feast awaited them: tea and champagne, fruit and toast and childish little luxuries, set forth pell-mell and pressed at random on the guests. And here he must make a speech for himself and his wife, praising their destiny, their marriage, their son, their daughter-in-law, their grandchildren, their manifold causes of gratitude: surely the most innocent speech, the old, sharp contemner of his innocence now watching him with eyes of admiration. Then it was time for the guests to depart; and they went away, bathed, even to the youngest child, in tears of inseparable sorrow and gladness, and leaving the golden bride and bridegroom to their own society and that of the hired nurse.

It was a great thing for Fleeming to make, even thus

late, the acquaintance of his father; but the harrowing pathos of such scenes consumed him. In a life of tense intellectual effort, a certain smoothness of emotional tenor were to be desired; or we burn the candle at both ends. Dr. Bell perceived the evil that was being done; he pressed Mrs. Jenkin to restrain her husband from too frequent visits; but here was one of those clear-cut, indubitable duties for which Fleeming lived, and he could not pardon even the suggestion of neglect.

And now, after death had so long visibly but still innocuously hovered above the family, it began at last to strike and its blows fell thick and heavy. The first to go was uncle John Jenkin, taken at last from his Mexican dwelling and the lost tribes of Israel; and nothing in this remarkable old gentleman's life became him like the leaving of it. His sterling, jovial acquiescence in man's destiny was a delight to Fleeming. "My visit to Stowting has been a very strange but not at all a painful one," he wrote. "In case you ever wish to make a person die as he ought to die in a novel," he said to me, "I must tell you all about my old uncle." He was to see a nearer instance before long; for this family of Jenkin, if they were not very aptly fitted to live, had the art of manly dying. Uncle John was but an outsider after all; he had dropped out of hail of his nephew's way of life and station in society, and was more like some shrewd, old, humble friend who should have kept a lodge; yet he led the procession of becoming deaths, and began in the mind of Fleeming that train of tender and grateful thought, which was like a preparation for his own. Already I find him writing in the plural of "these impending deaths"; already I

find him in quest of consolation. "There is little pain in store for these wayfarers," he wrote, "and we have hope — more than hope, trust."

On May 19, 1884, Mr. Austin was taken. He was seventy-eight years of age, suffered sharply with all his old firmness, and died happy in the knowledge that he had left his wife well cared for. This had always been a bosom concern; for the Barrons were long-lived and he believed that she would long survive him. But their union had been so full and quiet that Mrs. Austin languished under the separation. In their last years, they would sit all evening in their own drawing-room hand in hand: two old people who, for all their fundamental differences, had yet grown together and become all the world in each other's eyes and hearts; and it was felt to be a kind release, when eight months after, on January 14, 1885, Eliza Barron followed Alfred Austin. "I wish I could save you from all pain," wrote Fleeming six days later to his sorrowing wife, "I would if I could — but my way is not God's way; and of this be assured,—God's way is best."

In the end of the same month, Captain Jenkin caught cold and was confined to bed. He was so unchanged in spirit that at first there seemed no ground of fear; but his great age began to tell, and presently it was plain he had a summons. The charm of his sailor's cheerfulness and ancient courtesy, as he lay dying, is not to be described. There he lay, singing his old sea songs; watching the poultry from the window with a child's delight; scribbling on the slate little messages to his wife, who lay bed-ridden in another room; glad to have Psalms read aloud to him, if they were of a

pious strain—checking, with an "I don't think we need read that, my dear," any that were gloomy or bloody. Fleeming's wife coming to the house and asking one of the nurses for news of Mrs. Jenkin, "Madam, I do not know," said the nurse; "for I am really so carried away by the captain that I can think of nothing else." One of the last messages scribbled to his wife and sent her with a glass of the champagne that had been ordered for himself, ran, in his most finished vein of childish madrigal: "The Captain bows to you, my love, across the table." When the end was near and it was thought best that Fleeming should no longer go home but sleep at Merchiston, he broke his news to the Captain with some trepidation, knowing that it carried sentence of death. "Charming, charming—charming arrangement," was the Captain's only commentary. It was the proper thing for a dying man, of Captain Jenkin's school of manners, to make some expression of his spiritual state; nor did he neglect the observance. With his usual abruptness, "Fleeming," said he, "I suppose you and I feel about all this as two Christian gentlemen should." A last pleasure was secured for him. He had been waiting with painful interest for news of Gordon and Khartoum; and by great good fortune, a false report reached him that the city was relieved, and the men of Sussex (his old neighbours) had been the first to enter. He sat up in bed and gave three cheers for the Sussex regiment. The subsequent correction, if it came in time, was prudently withheld from the dying man. An hour before midnight on the fifth of February, he passed away: aged eighty-four.

Word of his death was kept from Mrs. Jenkin; and

she survived him no more than nine and forty hours. On the day before her death, she received a letter from her old friend Miss Bell of Manchester, knew the hand, kissed the envelope, and laid it on her heart; so that she too died upon a pleasure. Half an hour after midnight, on the eighth of February, she fell asleep: it is supposed in her seventy-eighth year.

Thus, in the space of less than ten months, the four seniors of this family were taken away; but taken with such features of opportunity in time or pleasant courage in the sufferer, that grief was tempered with a kind of admiration. The effect on Fleeming was profound. His pious optimism increased and became touched with something mystic and filial. "The grave is not good, the approaches to it are terrible," he had written at the beginning of his mother's illness: he thought so no more, when he had laid father and mother side by side at Stowting. He had always loved life; in the brief time that now remained to him, he seemed to be half in love with death. "Grief is no duty," he wrote to Miss Bell; "it was all too beautiful for grief," he said to me; but the emotion, call it by what name we please, shook him to his depths; his wife thought he would have broken his heart when he must demolish the Captain's trophy in the dining-room, and he seemed thenceforth scarcely the same man.

These last years were indeed years of an excessive demand upon his vitality; he was not only worn out with sorrow, he was worn out by hope. The singular invention to which he gave the name of telpherage, had of late consumed his time, overtaxed his strength and overheated his imagination. The words in which he

first mentioned his discovery to me — "I am simply Alnaschar" — were not only descriptive of his state of mind, they were in a sense prophetic; since whatever fortune may await his idea in the future, it was not his to see it bring forth fruit. Alnaschar he was indeed; beholding about him a world all changed, a world filled with telpherage wires; and seeing not only himself and family but all his friends enriched. It was his pleasure, when the company was floated, to endow those whom he liked with stock; one, at least, never knew that he was a possible rich man until the grave had closed over his stealthy benefactor. And however Fleeming chafed among material and business difficulties, this rainbow vision never faded; and he, like his father and his mother, may be said to have died upon a pleasure. But the strain told, and he knew that it was telling. "I am becoming a fossil," he had written five years before, as a kind of plea for a holiday visit to his beloved Italy. "Take care! If I am Mr. Fossil, you will be Mrs. Fossil, and Jack will be Jack Fossil, and all the boys will be little fossils, and then we shall be a collection." There was no fear more chimerical for Fleeming; years brought him no repose; he was as packed with energy, as fiery in hope, as at the first; weariness, to which he began to be no stranger, distressed, it did not quiet him. He feared for himself, not without ground, the fate which had overtaken his mother; others shared the fear. In the changed life now made for his family, the elders dead, the sons going from home upon their education, even their tried domestic (Mrs. Alice Dunns) leaving the house after twenty-two years of service, it was not unnatural that he should return to dreams of Italy. He

and his wife were to go (as he told me) on "a real honeymoon tour." He had not been alone with his wife "to speak of," he added, since the birth of his children. But now he was to enjoy the society of her to whom he wrote, in these last days, that she was his "Heaven on earth." Now he was to revisit Italy, and see all the pictures and the buildings and the scenes that he admired so warmly, and lay aside for a time the irritations of his strenuous activity. Nor was this all. A trifling operation was to restore his former lightness of foot; and it was a renovated youth that was to set forth upon this reënacted honeymoon.

The operation was performed; it was of a trifling character, it seemed to go well, no fear was entertained; and his wife was reading aloud to him as he lay in bed, when she perceived him to wander in his mind. It is doubtful if he ever recovered a sure grasp upon the things of life; and he was still unconscious when he passed away, June the twelfth, 1885, in the fifty-third year of his age. He passed; but something in his gallant vitality had impressed itself upon his friends, and still impresses. Not from one or two only, but from many, I hear the same tale of how the imagination refuses to accept our loss and instinctively looks for his reappearing, and how memory retains his voice and image like things of yesterday. Others, the well-beloved too, die and are progressively forgotten; two years have passed since Fleeming was laid to rest beside his father, his mother, and his Uncle John; and the thought and the look of our friend still haunt us.

RECORDS OF A FAMILY OF ENGINEERS

## NOTE BY SIDNEY COLVIN

The following fragment of family biography is here published for the first time. It had occupied the author at intervals for several years of his life in Samoa, and especially during the summer of 1893 (see Vailima Letters, pp. 240, 241, etc.). It is printed substantially from a manuscript which he sent home in the autumn of that year, and which was at his request set up in type for further revision and correction. In the meantime he had received from a friend and namesake who is a specialist in genealogical research, Mr. J. H. Stevenson, Advocate, Edinburgh, a long communication which caused him to modify in several points his views concerning the family name and history. But, so far as is known, he had not before his death revised his original draft so as to embody the corrections received from this and other quarters. Accordingly the following chapters must be regarded as representing his first rather than his final conceptions of the subject. With the help of Mr. J. H. Stevenson, and from information furnished by some members of the family, the Editor has been enabled to make a certain number of corrections on matters of fact. All footnotes not followed by the author's initials are editorial.[1]

S. C.

[1] The above appeared in the Edinburgh Edition, from which the following pages are copied with the approval of Mr. Stevenson's executors.

## INTRODUCTION

### THE SURNAME OF STEVENSON

FROM the thirteenth century onwards, the name, under the various disguises of Stevinstoun, Stevensoun, Stevensonne, Stenesone, and Stewinsoune, spread across Scotland from the mouth of the Firth of Forth to the mouth of the Firth of Clyde. Four times at least it occurs as a place-name. There is a parish of Stevenston in Cunningham; a second place of the name in the Barony of Bothwell in Lanark; a third on Lyne, above Drochil Castle; the fourth on the Tyne, near Traprain Law. Stevenson of Stevenson (co. Lanark) swore fealty to Edward I. in 1296, and the last of that family died after the Restoration. Stevensons of Hirdmanshiels, in Midlothian, rode in the Bishops' Raid of Aberlady, served as jurors, stood bail for neighbours — Hunter of Polwood, for instance — and became extinct about the same period, or possibly earlier. A Stevenson of Luthrie and another of Pitroddie make their bows, give their names, and vanish. And by the year 1700 it does not appear that any acre of Scots land was vested in any Stevenson.[1]

[1] An error: Stevensons owned at this date the barony of Dolphingston in Haddingtonshire, Montgrennan in Ayrshire, and several other lesser places.

Here is, so far, a melancholy picture of backward progress, and a family posting towards extinction. But the law (however administered, and I am bound to aver that, in Scotland, "it couldna weel be waur") acts as a kind of dredge, and with dispassionate impartiality brings up into the light of day, and shows us for a moment, in the jury-box or on the gallows, the creeping things of the past. By these broken glimpses we are able to trace the existence of many other and more inglorious Stevensons, picking a private way through the brawl that makes Scots history. They were members of Parliament for Peebles, Stirling, Pittenweem, Kilrenny, and Inverurie. We find them burgesses of Edinburgh; indwellers in Biggar, Perth, and Dalkeith. Thomas was the forester of Newbattle Park, Gavin was a baker, John a maltman, Francis a chirurgeon, and "Schir William" a priest. In the feuds of Humes and Heatleys, Cunninghams, Montgomeries, Mures, Ogilvies, and Turnbulls, we find them inconspicuously involved, and apparently getting rather better than they gave. Schir William (reverend gentleman) was cruellie slaughtered on the Links of Kincraig in 1532; James ("in the mill-town of Roberton"), murdered in 1590; Archibald ("in Gallowfarren"), killed with shots of pistols and hagbuts in 1608. Three violent deaths in about seventy years, against which we can only put the case of Thomas, servant to Hume of Cowden Knowes, who was arraigned with his two young masters for the death of the Bastard of Mellerstanes in 1569. John ("in Dalkeith") stood sentry without Holyrood while the banded lords were despatching Rizzio within. William, at the ringing of Perth bell, ran before Gowrie

House "with ane sword, and, entering to the yearde, saw George Craiggingilt with ane twa-handit sword and utheris nychtbouris; at quilk time James Boig cryit ower ane wynds, 'Awa hame! ye will all be hang-it'"—a piece of advice which William took, and immediately "depairtit." John got a maid with child to him in Biggar, and seemingly deserted her; she was hanged on the Castle Hill for infanticide, June 1614; and Martin, elder in Dalkeith, eternally disgraced the name by signing witness in a witch trial, 1661. These are two of our black sheep.[1] Under the Restoration, one Stevenson was a bailie in Edinburgh, and another the lessee of the Canonmills. There were at the same period two physicians of the name in Edinburgh, one of whom, Dr. Archibald, appears to have been a famous man in his day and generation. The Court had continual need of him; it was he who reported, for instance, on the state of Rumbold; and he was for some time in the enjoyment of a pension of a thousand pounds Scots (about eighty pounds sterling) at a time when five hundred pounds is described as "an opulent future." I do not know if I should be glad or sorry that he failed to keep favour; but on 6th January 1682 (rather a cheerless New Year's present) his pension was expunged.[2] There need be no doubt, at least, of my exultation at the fact that he was knighted and recorded arms. Not quite so genteel, but still in public life, Hugh was Under-Clerk to the Privy Council, and liked being so extremely. I gather this from his conduct in

[1] Pitcairn's *Criminal Trials*, at large.—[R. L. S.]

[2] Fountainhall's *Decisions*, vol. i. pp. 56, 132, 186, 204, 368.—[R. L. S.]

September 1681, when, with all the lords and their servants, he took the woful and soul-destroying Test, swearing it "word by word upon his knees." And, behold! it was in vain, for Hugh was turned out of his small post in 1684.[1] Sir Archibald and Hugh were both plainly inclined to be trimmers; but there was one witness of the name of Stevenson who held high the banner of the Covenant—John, "Land-Labourer,[2] in the Parish of Daily, in Carrick," that "eminently pious man." He seems to have been a poor sickly soul, and shows himself disabled with scrofula, and prostrate and groaning aloud with fever; but the enthusiasm of the martyr burned high within him.

"I was made to take joyfully the spoiling of my goods, and with pleasure for His name's sake wandered in deserts and in mountains, in dens and caves of the earth. I lay four months in the coldest season of the year in a haystack in my father's garden, and a whole February in the open fields not far from Camragen, and this I did without the least prejudice from the night air; one night, when lying in the fields near to the Carrick-Miln, I was all covered with snow in the morning. Many nights have I lain with pleasure in the churchyard of Old Daily, and made a grave my pillow; frequently have I resorted to the old walls about the glen, near to Camragen, and there sweetly rested." The visible hand of God protected and directed him. Dragoons were turned aside from the bramble-bush where he lay hidden. Miracles were performed for his

[1] *Ibid.*, pp. 158, 299.—[R. L. S.] [2] Working farmer: Fr. *laboureur*.

behoof. "I got a horse and a woman to carry the child, and came to the same mountain, where I wandered by the mist before; it is commonly known by the name of Kells-rhins: when we came to go up the mountain, there came on a great rain, which we thought was the occasion of the child's weeping, and she wept so bitterly, that all we could do could not divert her from it, so that she was ready to burst. When we got to the top of the mountain, where the Lord had been formerly kind to my soul in prayer, I looked round me for a stone, and espying one, I went and brought it. When the woman with me saw me set down the stone, she smiled, and asked what I was going to do with it. I told her I was going to set it up as my Ebenezer, because hitherto, and in that place, the Lord had formerly helped, and I hoped would yet help. The rain still continuing, the child weeping bitterly, I went to prayer, and no sooner did I cry to God, but the child gave over weeping, and when we got up from prayer, the rain was pouring down on every side, but in the way where we were to go there fell not one drop; the place not rained on was as big as an ordinary avenue." And so great a saint was the natural butt of Satan's persecutions. "I retired to the fields for secret prayer about midnight. When I went to pray I was much straitened, and could not get one request, but 'Lord pity,' 'Lord help'; this I came over frequently; at length the terror of Satan fell on me in a high degree, and all I could say even then was — 'Lord help.' I continued in the duty for some time, notwithstanding of this terror. At length I got up to my feet, and the terror still increased;

then the enemy took me by the arm-pits, and seemed to lift me up by my arms. I saw a loch just before me, and I concluded he designed to throw me there by force; and had he got leave to do so, it might have brought a great reproach upon religion."[1] But it was otherwise ordered, and the cause of piety escaped that danger.[2]

On the whole, the Stevensons may be described as decent, reputable folk, following honest trades — millers, maltsters, and doctors, playing the character parts in the Waverley Novels with propriety, if without distinction; and to an orphan looking about him in the world for a potential ancestry, offering a plain and quite unadorned refuge, equally free from shame and glory. John, the land-labourer, is the one living and memorable figure, and he, alas! cannot possibly be more near than a collateral. It was on August 12, 1678, that he heard Mr. John Welsh on the Craigdowhill, and "took the heavens, earth, and sun in the firmament that was shining on us, as also the ambassador who made the offer, and *the clerk who raised the psalms,* to witness that I did give myself away to the Lord in a personal and perpetual covenant never to be forgotten"; and already, in 1675, the birth of my direct ascendant was registered in Glasgow. So that I have been pursuing ancestors too far down; and John the land-labourer is

[1] This John Stevenson was not the only "witness" of the name; other Stevensons were actually killed during the persecutions, in the Glen of Trool, on Pentland, etc.; and it is very possible that the author's own ancestor was one of the mounted party embodied by Muir of Caldwell, only a day too late for Pentland.

[2] Wodrow Society's *Select Biographies*, vol. ii.— [R. L. S.]

debarred me, and I must relinquish from the trophies of my house his *rare soul-strengthening and comforting cordial.* It is the same case with the Edinburgh bailie and the miller of the Canonmills, worthy man! and with that public character, Hugh the Under-Clerk, and more than all, with Sir Archibald, the physician, who recorded arms. And I am reduced to a family of inconspicuous maltsters in what was then the clean and handsome little city on the Clyde.

The name has a certain air of being Norse. But the story of Scottish nomenclature is confounded by a continual process of translation and half-translation from the Gaelic which in olden days may have been sometimes reversed. Roy becomes Reid; Gow, Smith. A great Highland clan uses the name of Robertson; a sept in Appin that of Livingstone; Maclean in Glencoe answers to Johnstone at Lockerby. And we find such hybrids as Macalexander for Macallister. There is but one rule to be deduced: that however uncompromisingly Saxon a name may appear, you can never be sure it does not designate a Celt. My great-grandfather wrote the name *Stevenson* but pronounced it *Steenson,* after the fashion of the immortal minstrel in *Redgauntlet;* and this elision of a medial consonant appears a Gaelic process; and, curiously enough, I have come across no less than two Gaelic forms: *John Macstophane cordinerius in Crossraguel,* 1573, and *William M'Steen* in Dunskeith (co. Ross), 1605. Stevenson, Steenson, Macstophane, M'Steen: which is the original? which the translation? Or were these separate creations of the patronymic, some English, some Gaelic? The curiously compact territory in which we find them seated — Ayr, Lanark,

Peebles, Stirling, Perth, Fife, and the Lothians, would seem to forbid the supposition.[1]

"STEVENSON — or according to tradition of one of the proscribed of the clan MacGregor, who was born among the willows or in a hill-side sheep-pen — 'Son of my love,' a heraldic bar sinister, but history reveals a reason for the birth among the willows far other than the sinister aspect of the name": these are the dark words of Mr. Cosmo Innes; but history or tradition, being interrogated, tells a somewhat tangled tale. The heir of Macgregor of Glenorchy, murdered about 1353 by the Argyll Campbells, appears to have been the original "Son of my love"; and his more loyal clansmen took the name to fight under. It may be supposed the story of their resistance became popular, and the name in some sort identified with the idea of opposition to the Campbells. Twice afterwards, on some renewed aggression, in 1502 and 1552, we find the Macgregors again banding themselves into a sept of "Sons of my love"; and when the great disaster fell on them in 1603, the whole original legend reappears, and we have the heir of Alaster of Glenstrae born "among the willows" of a fugitive mother, and the more loyal clansmen again rallying under the name of Stevenson. A story would not be told so often unless it had some base in fact; nor (if there were no bond at all between the Red Macgregors and the Stevensons) would that extraneous and somewhat uncouth name be so much repeated in the legends of the Children of the Mist.

[1] Though the districts here named are those in which the name of Stevenson is most common, it is in point of fact far more wide-spread than the text indicates, and occurs from Dumfries and Berwickshire to Aberdeen and Orkney.

But I am enabled, by my very lively and obliging correspondent, Mr. George A. Macgregor Stevenson of New York, to give an actual instance. His grandfather, great-grandfather, great-great-grandfather, and great-great-great-grandfather, all used the names of Macgregor and Stevenson as occasion served; being perhaps Macgregor by night and Stevenson by day. The great-great-great-grandfather was a mighty man of his hands, marched with the clan in the Forty-five, and returned with *spolia opima* in the shape of a sword, which he had wrested from an officer in the retreat, and which is in the possession of my correspondent to this day. His great-grandson (the grandfather of my correspondent), being converted to Methodism by some wayside preacher, discarded in a moment his name, his old nature, and his political principles, and with the zeal of a proselyte sealed his adherence to the Protestant Succession by baptising his next son George. This George became the publisher and editor of the *Wesleyan Times*. His children were brought up in ignorance of their Highland pedigree; and my correspondent was puzzled to overhear his father speak of him as a true Macgregor, and amazed to find, in rummaging about that peaceful and pious house, the sword of the Hanoverian officer. After he was grown up and was better informed of his descent, "I frequently asked my father," he writes, "why he did not use the name of Macgregor; his replies were significant, and give a picture of the man: 'It isn't a good *Methodist* name. *You* can use it, but it will do you no *good.*' Yet the old gentleman, by way of pleasantry, used to announce himself to friends as 'Colonel Macgregor.'"

Here, then, are certain Macgregors habitually using the name of Stevenson, and at last, under the influence of Methodism, adopting it entirely. Doubtless a proscribed clan could not be particular; they took a name as a man takes an umbrella against a shower; as Rob Roy took Campbell, and his son took Drummond. But this case is different; Stevenson was not taken and left — it was consistently adhered to. It does not in the least follow that all Stevensons are of the clan Alpin; but it does follow that some may be. And I cannot conceal from myself the possibility that James Stevenson in Glasgow, my first authentic ancestor, may have had a Highland *alias* upon his conscience and a claymore in his back parlour.

To one more tradition I may allude, that we are somehow descended from a French barber-surgeon who came to St. Andrews in the service of one of the Cardinal Beatons. No details were added. But the very name of France was so detested in my family for three generations, that I am tempted to suppose there may be something in it.[1]

[1] Mr. J. H. Stevenson is satisfied that these speculations as to a possible Norse, Highland, or French origin are vain. All we know about the engineer family is that it was sprung from a stock of Westland Whigs settled in the latter part of the seventeenth century in the parish of Neilston, as mentioned at the beginning of the next chapter. It may be noted that the Ayrshire parish of Stevenston, the lands of which are said to have received the name in the twelfth century, lies within thirteen miles south-west of this place. The lands of Stevenson in Lanarkshire, first mentioned in the next century, in the Ragman Roll, lie within twenty miles east.

# CHAPTER I

## DOMESTIC ANNALS

IT is believed that in 1665, James Stevenson in Nether Carsewell, parish of Neilston, county of Renfrew, and presumably a tenant farmer, married one Jean Keir; and in 1675, without doubt, there was born to these two a son Robert, possibly a maltster in Glasgow. In 1710, Robert married, for a second time, Elizabeth Cumming, and there was born to them, in 1720, another Robert, certainly a maltster in Glasgow. In 1742, Robert the second married Margaret Fulton (Margret, she called herself), by whom he had ten children, among whom were Hugh, born February 1749, and Alan, born June 1752.

With these two brothers my story begins. Their deaths were simultaneous; their lives unusually brief and full. Tradition whispered me in childhood they were the owners of an islet near St. Kitts; and it is certain they had risen to be at the head of considerable interests in the West Indies, which Hugh managed abroad and Alan at home, at an age when others are still curveting a clerk's stool. My kinsman, Mr. Stevenson of Stirling, has heard his father mention that there had been "something romantic" about Alan's marriage: and, alas! he has forgotten what. It was early at least.

His wife was Jean, daughter of David Lillie, a builder in Glasgow, and several times "Deacon of the Wrights": the date of the marriage has not reached me: but on 8th June 1772, when Robert, the only child of the union, was born, the husband and father had scarce passed, or had not yet attained, his twentieth year. Here was a youth making haste to give hostages to fortune. But this early scene of prosperity in love and business was on the point of closing.

There hung in the house of this young family, and successively in those of my grandfather and father, an oil painting of a ship of many tons burthen. Doubtless the brothers had an interest in the vessel; I was told she had belonged to them outright; and the picture was preserved through years of hardship, and remains to this day in the possession of the family, the only memorial of my great-grandsire Alan. It was on this ship that he sailed on his last adventure, summoned to the West Indies by Hugh. An agent had proved unfaithful on a serious scale; and it used to be told me in my childhood how the brothers pursued him from one island to another in an open boat, were exposed to the pernicious dews of the tropics, and simultaneously struck down. The dates and places of their deaths (now before me) would seem to indicate a more scattered and prolonged pursuit: Hugh, on the 16th April 1774, in Tobago, within sight of Trinidad; Alan, so late as May 26th, and so far away as "Santt Kittes," in the Leeward Islands—both, says the family Bible, "of a fiver" (!). The death of Hugh was probably announced by Alan in a letter, to which we may refer the details of the open boat and the dew. Thus, at least, in some-

thing like the course of post, both were called away, the one twenty-five, the other twenty-two; their brief generation became extinct, their short-lived house fell with them; and "in these lawless parts and lawless times" — the words are my grandfather's — their property was stolen or became involved. Many years later, I understand some small recovery to have been made; but at the moment almost the whole means of the family seem to have perished with the young merchants. On the 27th April, eleven days after Hugh Stevenson, twenty-nine before Alan, died David Lillie, the deacon of the wrights; so that mother and son were orphaned in one month. Thus, from a few scraps of paper bearing little beyond dates, we construct the outlines of the tragedy that shadowed the cradle of Robert Stevenson.

Jean Lillie was a young woman of strong sense, well fitted to contend with poverty, and of a pious disposition, which it is like that these misfortunes heated. Like so many other widowed Scotswomen, she vowed her son should wag his head in a pulpit; but her means were inadequate to her ambition. A charity school, and some time under a Mr. M'Intyre, "a famous linguist," were all she could afford in the way of education to the would-be minister. He learned no Greek; in one place he mentions that the Orations of Cicero were his highest book in Latin; in another that he had "delighted" in Virgil and Horace; but his delight could never have been scholarly. This appears to have been the whole of his training previous to an event which changed his own destiny and moulded that of his descendants — the second marriage of his mother.

There was a Merchant-Burgess of Edinburgh of the

name of Thomas Smith. The Smith pedigree has been traced a little more particularly than the Stevensons', with a similar dearth of illustrious names. One character seems to have appeared, indeed, for a moment at the wings of history: a skipper of Dundee who smuggled over some Jacobite big-wig at the time of the Fifteen, and was afterwards drowned in Dundee harbour while going on board his ship. With this exception, the generations of the Smiths present no conceivable interest even to a descendant; and Thomas, of Edinburgh, was the first to issue from respectable obscurity. His father, a skipper out of Broughty Ferry, was drowned at sea while Thomas was still young. He seems to have owned a ship or two — whalers, I suppose, or coasters — and to have been a member of the Dundee Trinity House, whatever that implies. On his death the widow remained in Broughty, and the son came to push his future in Edinburgh. There is a story told of him in the family which I repeat here because I shall have to tell later on a similar, but more perfectly authenticated, experience of his stepson, Robert Stevenson. Word reached Thomas that his mother was unwell, and he prepared to leave for Broughty on the morrow. It was between two and three in the morning, and the early northern daylight was already clear, when he awoke and beheld the curtains at the bed-foot drawn aside and his mother appear in the interval, smile upon him for a moment, and then vanish. The sequel is stereotype; he took the time by his watch, and arrived at Broughty to learn it was the very moment of her death. The incident is at least curious in having happened to such a person — as the tale is being told of

him. In all else, he appears as a man, ardent, passionate, practical, designed for affairs and prospering in them far beyond the average. He founded a solid business in lamps and oils, and was the sole proprietor of a concern called the Greenside Company's Works—"a multifarious concern it was," writes my cousin, Professor Swan, "of tinsmiths, coppersmiths, brassfounders, blacksmiths, and japanners." He was also, it seems, a shipowner and underwriter. He built himself "a land"—Nos. 1 and 2 Baxter's Place, then no such unfashionable neighbourhood—and died, leaving his only son in easy circumstances, and giving to his three surviving daughters portions of five thousand pounds and upwards. There is no standard of success in life; but in one of its meanings, this is to succeed.

In what we know of his opinions, he makes a figure highly characteristic of the time. A high tory and patriot, a captain—so I find it in my notes—of Edinburgh Spearmen, and on duty in the Castle during the Muir and Palmer troubles, he bequeathed to his descendants a bloodless sword and a somewhat violent tradition, both long preserved. The judge who sat on Muir and Palmer, the famous Braxfield, let fall from the bench the *obiter dictum*—"I never liked the French all my days, but now I hate them." If Thomas Smith, the Edinburgh Spearman, were in court, he must have been tempted to applaud. The people of that land were his abhorrence; he loathed Buonaparte like Antichrist. Towards the end he fell into a kind of dotage; his family must entertain him with games of tin soldiers, which he took a childish pleasure to array and overset; but those who played with him must be upon

their guard, for if his side, which was always that of the English against the French, should chance to be defeated, there would be trouble in Baxter's Place. For these opinions he may almost be said to have suffered. Baptized and brought up in the Church of Scotland, he had, upon some conscientious scruple, joined the communion of the Baptists. Like other Nonconformists, these were inclined to the liberal side in politics, and, at least in the beginning, regarded Buonaparte as a deliverer. From the time of his joining the Spearmen, Thomas Smith became in consequence a bugbear to his brethren in the faith. "They that take the sword shall perish with the sword," they told him; they gave him "no rest"; "his position became intolerable"; it was plain he must choose between his political and his religious tenets; and in the last years of his life, about 1812, he returned to the Church of his fathers.

August 1786 was the date of his chief advancement, when, having designed a system of oil lights to take the place of the primitive coal fires before in use, he was dubbed engineer to the newly-formed Board of Northern Lighthouses. Not only were his fortunes bettered by the appointment, but he was introduced to a new and wider field for the exercise of his abilities, and a new way of life highly agreeable to his active constitution. He seems to have rejoiced in the long journeys, and to have combined them with the practice of field sports. "A tall, stout man coming ashore with his gun over his arm"—so he was described to my father—the only description that has come down to me—by a lightkeeper old in the service. Nor did this change come alone. On the 9th July of the same year, Tho-

mas Smith had been left for the second time a widower. As he was still but thirty-three years old, prospering in his affairs, newly advanced in the world, and encumbered at the time with a family of children, five in number, it was natural that he should entertain the notion of another wife. Expeditious in business, he was no less so in his choice; and it was not later than June 1787 — for my grandfather is described as still in his fifteenth year — that he married the widow of Alan Stevenson.

The perilous experiment of bringing together two families for once succeeded. Mr. Smith's two eldest daughters, Jean and Janet, fervent in piety, unwearied in kind deeds, were well qualified both to appreciate and to attract the stepmother; and her son, on the other hand, seems to have found immediate favour in the eyes of Mr. Smith. It is, perhaps, easy to exaggerate the ready-made resemblances; the tired woman must have done much to fashion girls who were under ten; the man, lusty and opinionated, must have stamped a strong impression on the boy of fifteen. But the cleavage of the family was too marked, the identity of character and interest produced between the two men on the one hand, and the three women on the other, was too complete to have been the result of influence alone. Particular bonds of union must have pre-existed on each side. And there is no doubt that the man and the boy met with common ambitions, and a common bent, to the practice of that which had not so long before acquired the name of civil engineering.

For the profession which is now so thronged, famous, and influential, was then a thing of yesterday. My

grandfather had an anecdote of Smeaton, probably learned from John Clerk of Eldin, their common friend. Smeaton was asked by the Duke of Argyll to visit the West Highland coast for a professional purpose. He refused, appalled, it seems, by the rough travelling. "You can recommend some other fit person?" asked the Duke. "No," said Smeaton, "I am sorry I can't." "What!" cried the Duke, "a profession with only one man in it! Pray, who taught you?" "Why," said Smeaton, "I believe I may say I was self-taught, an 't please your grace." Smeaton, at the date of Thomas Smith's third marriage, was yet living; and as the one had grown to the new profession from his place at the instrument-maker's, the other was beginning to enter it by the way of his trade. The engineer of to-day is confronted with a library of acquired results; tables and formulæ to the value of folios full have been calculated and recorded; and the student finds everywhere in front of him the footprints of the pioneers. In the eighteenth century the field was largely unexplored; the engineer must read with his own eyes the face of nature; he arose a volunteer, from the workshop or the mill, to undertake works which were at once inventions and adventures. It was not a science then — it was a living art; and it visibly grew under the eyes and between the hands of its practitioners.

The charm of such an occupation was strongly felt by stepfather and stepson. It chanced that Thomas Smith was a reformer; the superiority of his proposed lamp and reflectors over open fires of coal secured his appointment; and no sooner had he set his hand to the task than the interest of that employment mastered him.

The vacant stage on which he was to act, and where all had yet to be created — the greatness of the difficulties, the smallness of the means intrusted him — would rouse a man of his disposition like a call to battle. The lad introduced by marriage under his roof was of a character to sympathize; the public usefulness of the service would appeal to his judgment, the perpetual need for fresh expedients stimulate his ingenuity. And there was another attraction which, in the younger man at least, appealed to, and perhaps first aroused a profound and enduring sentiment of romance: I mean the attraction of the life. The seas into which his labours carried the new engineer were still scarce charted, the coasts still dark; his way on shore was often far beyond the convenience of any road; the isles in which he must sojourn were still partly savage. He must toss much in boats; he must often adventure on horseback by the dubious bridle-track through unfrequented wildernesses; he must sometimes plant his lighthouse in the very camp of wreckers; and he was continually enforced to the vicissitudes of out-door life. The joy of my grandfather in this career was strong as the love of woman. It lasted him through youth and manhood, it burned strong in age, and at the approach of death his last yearning was to renew these loved experiences. What he felt himself he continued to attribute to all around him. And to this supposed sentiment in others I find him continually, almost pathetically, appealing: often in vain.

Snared by these interests, the boy seems to have become almost at once the eager confident and adviser of his new connection; the Church, if he had ever en-

tertained the prospect very warmly, faded from his view; and at the age of nineteen I find him already in a post of some authority, superintending the construction of the lighthouse on the isle of Little Cumbrae, in the Firth of Clyde. The change of aim seems to have caused or been accompanied by a change of character. It sounds absurd to couple the name of my grandfather with the word indolence; but the lad who had been destined from the cradle to the Church, and who had attained the age of fifteen without acquiring more than a moderate knowledge of Latin, was at least no unusual student. And from the day of his charge at Little Cumbrae he steps before us what he remained until the end, a man of the most zealous industry, greedy of occupation, greedy of knowledge, a stern husband of time, a reader, a writer, unflagging in his task of self-improvement. Thenceforward his summers were spent directing works and ruling workmen, now in uninhabited, now in half-savage islands; his winters were set apart, first at the Andersonian Institution, then at the University of Edinburgh to improve himself in mathematics, chemistry, natural history, agriculture, moral philosophy, and logic; a bearded student — although no doubt scrupulously shaved. I find one reference to his years in class which will have a meaning for all who have studied in Scottish Universities. He mentions a recommendation made by the professor of logic. "The high-school men," he writes, "and *bearded men like myself,* were all attention." If my grandfather were throughout life a thought too studious of the art of getting on, much must be forgiven to the bearded and belated student who looked across, with a sense of differ-

ence, at "the high-school men." Here was a gulf to be crossed; but already he could feel that he had made a beginning, and that must have been a proud hour when he devoted his earliest earnings to the repayment of the charitable foundation in which he had received the rudiments of knowledge.

In yet another way he followed the example of his father-in-law, and from 1794 till 1807, when the affairs of the Bell Rock made it necessary for him to resign, he served in different corps of volunteers. In the last of these he rose to a position of distinction, no less than captain of the Grenadier Company, and his colonel, in accepting his resignation, entreated he would do them "the favour of continuing as an honorary member of a corps which has been so much indebted for your zeal and exertions."

To very pious women the men of the house are apt to appear worldly. The wife, as she puts on her new bonnet before church, is apt to sigh over that assiduity which enabled her husband to pay the milliner's bill. And in the household of the Smiths and Stevensons the women were not only extremely pious, but the men were in reality a trifle worldly. Religious they both were; conscious, like all Scots, of the fragility and unreality of that scene in which we play our uncomprehended parts; like all Scots, realizing daily and hourly the sense of another will than ours and a perpetual direction in the affairs of life. But the current of their endeavours flowed in a more obvious channel. They had got on so far; to get on further was their next ambition — to gather wealth, to rise in society, to leave their descendants higher than themselves, to be (in some

sense) among the founders of families. Scott was in the same town nourishing similar dreams. But in the eyes of the women these dreams would be foolish and idolatrous.

I have before me some volumes of old letters addressed to Mrs. Smith and the two girls, her favourites, which depict in a strong light their characters and the society in which they moved.

"My very dear and much esteemed Friend," writes one correspondent, "this day being the anniversary of our acquaintance, I feel inclined to address you; but where shall I find words to express the feelings of a graitful *Heart,* first to the Lord who graiciously inclined you on this day last year to notice an afflicted Strainger providentially cast in your way far from any Earthly friend? . . . Methinks I shall hear him say unto you, 'Inasmuch as ye shewed kindness to my afflicted handmaiden, ye did it unto me.'"

This is to Jean; but the same afflicted lady wrote indifferently to Jean, to Janet, and to Mrs. Smith, whom she calls "my Edinburgh mother." It is plain the three were as one person, moving to acts of kindness, like the Graces, inarmed. Too much stress must not be laid on the style of this correspondence; Clarinda survived, not far away, and may have met the ladies on the Calton Hill; and many of the writers appear, underneath the conventions of the period, to be genuinely moved. But what unpleasantly strikes a reader is that these devout unfortunates found a revenue in their devotion. It is everywhere the same tale: on the side of the soft-hearted ladies, substantial acts of help; on the side of the correspondents, affection, italics, texts, ecstasies, and imperfect spelling. When a midwife is recommended, not at all for proficiency in her important art, but be-

cause she has "a sister whom I [the correspondent] esteem and respect, and [who] is a spiritual daughter of my Hon[d] Father in the Gosple," the mask seems to be torn off, and the wages of godliness appear too openly. Capacity is a secondary matter in a midwife, temper in a servant, affection in a daughter, and the repetition of a shibboleth fulfils the law. Common decency is at times forgot in the same page with the most sanctified advice and aspiration. Thus I am introduced to a correspondent who appears to have been at the time the housekeeper at Invermay, and who writes to condole with my grandmother in a season of distress. For nearly half a sheet she keeps to the point with an excellent discretion in language; then suddenly breaks out:

"It was fully my intention to have left this at Martinmass, but the Lord fixes the bounds of our habitation. I have had more need of patience in my situation here than in any other, partly from the very violent, unsteady, deceitful temper of the Mistress of the Family, and also from the state of the house. It was in a train of repair when I came here two years ago, and is still in Confusion. There is above six Thousand Pounds' worth of Furniture come from London to be put up when the rooms are completely finished; and then, woe be to the Person who is Housekeeper at Invermay!"

And by the tail of the document, which is torn, I see she goes on to ask the bereaved family to seek her a new place. It is extraordinary that people should have been so deceived in so careless an impostor; that a few sprinkled "God willings" should have blinded them to the essence of this venomous letter; and that they should have been at the pains to bind it in with others (many of them highly touching) in their memorial of harrow-

ing days. But the good ladies were without guile and without suspicion; they were victims marked for the axe, and the religious impostors snuffed up the wind as they drew near.

I have referred above to my grandmother; it was no slip of the pen: for by an extraordinary arrangement, in which it is hard not to suspect the managing hand of a mother, Jean Smith became the wife of Robert Stevenson. Mrs. Smith had failed in her design to make her son a minister, and she saw him daily more immersed in business and worldly ambition. One thing remained that she might do: she might secure for him a godly wife, that great means of sanctification; and she had two under her hand, trained by herself, her dear friends and daughters both in law and love—Jean and Janet. Jean's complexion was extremely pale, Janet's was florid; my grandmother's nose was straight, my great-aunt's aquiline; but by the sound of the voice, not even a son was able to distinguish one from other. The marriage of a man of twenty-seven and a girl of twenty who have lived for twelve years as brother and sister, is difficult to conceive. It took place, however, and thus in 1799 the family was still further cemented by the union of a representative of the male or worldly element with one of the female and devout.

This essential difference remained unbridged, yet never diminished the strength of their relation. My grandfather pursued his design of advancing in the world with some measure of success; rose to distinction in his calling, grew to be the familiar of members of Parliament, judges of the Court of Session, and "landed gentlemen"; learned a ready address, had a flow of in-

teresting conversation, and when he was referred to as "a highly respectable *bourgeois*," resented the description. My grandmother remained to the end devout and unambitious, occupied with her Bible, her children, and her house; easily shocked, and associating largely with a clique of godly parasites. I do not know if she called in the midwife already referred to; but the principle on which that lady was recommended, she accepted fully. The cook was a godly woman, the butcher a Christian man, and the table suffered. The scene has been often described to me of my grandfather sawing with darkened countenance at some indissoluble joint—"Preserve me, my dear, what kind of a reedy, stringy beast is this?"—of the joint removed, the pudding substituted and uncovered; and of my grandmother's anxious glance and hasty, deprecatory comment, "Just mismanaged!" Yet with the invincible obstinacy of soft natures, she would adhere to the godly woman and the Christian man, or find others of the same kidney to replace them. One of her confidants had once a narrow escape; an unwieldy old woman, she had fallen from an outside stair in a close of the Old Town; and my grandmother rejoiced to communicate the providential circumstance that a baker had been passing underneath with his bread upon his head. "I would like to know what kind of providence the baker thought it!" cried my grandfather.

But the sally must have been unique. In all else that I have heard or read of him, so far from criticising, he was doing his utmost to honour and even to emulate his wife's pronounced opinions. In the only letter which has come to my hand of Thomas Smith's, I find

him informing his wife that he was "in time for afternoon church"; similar assurances or cognate excuses abound in the correspondence of Robert Stevenson; and it is comical and pretty to see the two generations paying the same court to a female piety more highly strung: Thomas Smith to the mother of Robert Stevenson — Robert Stevenson to the daughter of Thomas Smith. And if for once my grandfather suffered himself to be hurried, by his sense of humor and justice, into that remark about the case of Providence and the Baker, I should be sorry for any of his children who should have stumbled into the same attitude of criticism. In the apocalyptic style of the housekeeper of Invermay, woe be to that person! But there was no fear; husband and sons all entertained for the pious, tender soul the same chivalrous and moved affection. I have spoken with one who remembered her, and who had been the intimate and equal of her sons, and I found this witness had been struck, as I had been, with a sense of disproportion between the warmth of the adoration felt and the nature of the woman, whether as described or observed. She diligently read and marked her Bible; she was a tender nurse; she had a sense of humor under strong control; she talked and found some amusement at her (or rather at her husband's) dinner-parties. It is conceivable that even my grandmother was amenable to the seductions of dress; at least I find her husband inquiring anxiously about "the gowns from Glasgow," and very careful to describe the toilet of the Princess Charlotte, whom he had seen in church "in a Pelisse and Bonnet of the same colour of cloth as the Boys' Dress jackets, trimmed with blue

satin ribbons; the hat or Bonnet, Mr. Spittal said, was a Parisian sloutch, and had a plume of three white feathers." But all this leaves a blank impression, and it is rather by reading backward in these old musty letters, which have moved me now to laughter and now to impatience, that I glean occasional glimpses of how she seemed to her contemporaries, and trace (at work in her queer world of godly and grateful parasites) a mobile and responsive nature. Fashion moulds us, and particularly women, deeper than we sometimes think; but a little while ago, and, in some circles, women stood or fell by the degree of their appreciation of old pictures; in the early years of the century (and surely with more reason) a character like that of my grandmother warmed, charmed, and subdued, like a strain of music, the hearts of the men of her own household. And there is little doubt that Mrs. Smith, as she looked on at the domestic life of her son and her stepdaughter, and numbered the heads in their increasing nursery, must have breathed fervent thanks to her Creator.

Yet this was to be a family unusually tried; it was not for nothing that one of the godly women saluted Miss Janet Smith as "a veteran in affliction"; and they were all before middle life experienced in that form of service. By the 1st of January 1808, besides a pair of still-born twins, five children had been born and still survived to the young couple. By the 11th two were gone; by the 28th a third had followed, and the two others were still in danger. In the letters of a former nurserymaid—I give her name, Jean Mitchell, *honoris causa*—we are enabled to feel, even at this distance of

time, some of the bitterness of that month of bereavement.

"I have this day received," she writes to Miss Janet, "the melancholy news of my dear babys' deaths. My heart is like to break for my dear Mrs. Stevenson. O may she be supported on this trying occasion! I hope her other three babys will be spared to her. O, Miss Smith, did I think when I parted from my sweet babys that I never was to see them more?" "I received," she begins her next, "the mournful news of my dear Jessie's death. I also received the hair of my three sweet babys, which I will preserve as dear to their memorys and as a token of Mr. and Mrs. Stevenson's friendship and esteem. At my leisure hours, when the children are in bed, they occupy all my thoughts. I dream of them. About two weeks ago, I dreamed that my sweet little Jessie came running to me in her usual way, and I took her in my arms. O my dear babys, were mortal eyes permitted to see them in heaven, we would not repine nor grieve for their loss."

By the 29th of February, the Reverend John Campbell, a man of obvious sense and human value, but hateful to the present biographer, because he wrote so many letters and conveyed so little information, summed up this first period of affliction in a letter to Miss Smith: "Your dear sister but a little while ago had a full nursery, and the dear blooming creatures sitting around her table filled her breast with hope that one day they should fill active stations in society and become an ornament in the Church below. But ah!"

Near a hundred years ago these little creatures ceased to be, and for not much less a period the tears have been dried. And to this day, looking in these stitched sheaves of letters, we hear the sound of many soft-hearted women sobbing for the lost. Never was such a massacre of the innocents; teething and chincough

and scarlet fever and small-pox ran the round; and little Lillies, and Smiths, and Stevensons fell like moths about a candle; and nearly all the sympathetic correspondents deplore and recall the little losses of their own. "It is impossible to describe the Heavnly looks of the Dear Babe the three last days of his life," writes Mrs. Laurie to Mrs. Smith. "Never — never, my dear aunt, could I wish to eface the rememberance of this Dear Child. Never, never, my dear aunt!" And so soon the memory of the dead and the dust of the survivors are buried in one grave.

There was another death in 1812; it passes almost unremarked; a single funeral seemed but a small event to these "veterans in affliction"; and by 1816 the nursery was full again. Seven little hopefuls enlivened the house; some were growing up; to the elder girl my grandfather already wrote notes in current hand at the tail of his letters to his wife; and to the elder boys he had begun to print, with laborious care, sheets of childish gossip and pedantic applications. Here, for instance, under date of May 26th, 1816, is part of a mythological account of London, with a moral for the three gentlemen, "Messieurs Alan, Robert, and James Stevenson," to whom the document is addressed:

"There are many prisons here like Bridewell, for, like other large towns, there are many bad men here as well as many good men. The natives of London are in general not so tall and strong as the people of Edinburgh, because they have not so much pure air, and instead of taking porridge they eat cakes made with sugar and plums. Here you have thousands of carts to draw timber, thousands of coaches to take you to all parts of the town, and thousands of boats to sail on the river Thames. But you must have money to pay, otherwise you can

get nothing. Now the way to get money is, become clever men and men of education, by being good scholars."

From the same absence, he writes to his wife on a Sunday:

"It is now about eight o'clock with me, and I imagine you to be busy with the young folks, hearing the questions [*Anglicé*, catechism], and indulging the boys with a chapter from the large Bible, with their interrogations and your answers in the soundest doctrine. I hope James is getting his verse as usual, and that Mary is not forgetting her little *hymn*. While Jeannie will be reading Wotherspoon, or some other suitable and instructive book, I presume our friend, Aunt Mary, will have just arrived with the news of a *throng kirk* [a crowded church] and a great sermon. You may mention, with my compliments to my mother, that I was at St. Paul's to-day, and attended a very excellent service with Mr. James Lawrie. The text was 'Examine and see that ye be in the faith.'"

A twinkle of humor lights up this evocation of the distant scene — the humor of happy men and happy homes. Yet it is penned upon the threshold of fresh sorrow. James and Mary — he of the verse and she of the hymn — did not much more than survive to welcome their returning father. On the 25th, one of the godly women writes to Janet:

"My dearest beloved madam, when I last parted from you, you was so affected with your affliction [you? or I?] could think of nothing else. But on Saturday, when I went to inquire after your health, how was I startled to hear that dear James was gone! Ah, what is this? My dear benefactors, doing so much good to many, to the Lord, suddenly to be deprived of their most valued comforts! I was thrown into great perplexity, could do nothing but murmur, why these things were done to such a family. I could not rest, but at midnight, whether spoken [or not] it was presented to my mind —'Those whom ye deplore are walking with me in white.' I conclude from this the Lord

saying to sweet Mrs. Stevenson: 'I gave them to be brought up for me: well done, good and faithful! they are fully prepared, and now I must present them to my father and your father, to my God and your God.'"

It would be hard to lay on flattery with a more sure and daring hand. I quote it as a model of a letter of condolence; be sure it would console. Very different, perhaps quite as welcome, is this from a lighthouse inspector to my grandfather:

"In reading your letter the trickling tear ran down my cheeks in silent sorrow for your departed dear ones, my sweet little friends. Well do I remember, and you will call to mind, their little innocent and interesting stories. Often have they come round me and taken me by the hand, but alas! I am no more destined to behold them."

The child who is taken becomes canonised, and the looks of the homeliest babe seem in the retrospect "heavenly the three last days of his life." But it appears that James and Mary had indeed been children more than usually engaging; a record was preserved a long while in the family of their remarks and "little innocent and interesting stories," and the blow and the blank were the more sensible.

Early the next month Robert Stevenson must proceed upon his voyage of inspection, part by land, part by sea. He left his wife plunged in low spirits; the thought of his loss, and still more of her concern, was continually present in his mind, and he draws in his letters home an interesting picture of his family relations:—

*"Windygates Inn, Monday (Postmark July 16th).*

"MY DEAREST JEANNIE,—While the people of the inn are getting me a little bit of something to eat, I sit down to tell you that I had a most

excellent passage across the water, and got to Wemyss at mid-day. I hope the children will be very good, and that Robert will take a course with you to learn his Latin lessons daily; he may, however, read English in company. Let them have strawberries on Saturdays."

"*Westhaven, 17th July.*

"I have been occupied to-day at the harbour of Newport, opposite Dundee, and am this far on my way to Arbroath. You may tell the boys that I slept last night in Mr. Steadman's tent. I found my bed rather hard, but the lodgings were otherwise extremely comfortable. The encampment is on the Fife side of the Tay, immediately opposite to Dundee. From the door of the tent you command the most beautiful view of the Firth, both up and down, to a great extent. At night all was serene and still, the sky presented the most beautiful appearance of bright stars, and the morning was ushered in with the song of many little birds."

"*Aberdeen, July 19th.*

"I hope, my dear, that you are going out of doors regularly and taking much exercise. I would have you to ***make the markets daily*** —and by all means to take a seat in the coach once or twice in the week and see what is going on in town. [The family were at the seaside.] It will be good not to be too great a stranger to the house. It will be rather painful at first, but as it is to be done, I would have you not to be too strange to the house in town.

"Tell the boys that I fell in with a soldier—his name is Henderson —who was twelve years with Lord Wellington and other commanders. He returned very lately with only eight-pence-half-penny in his pocket, and found his father and mother both in life, though they had never heard from him, nor he from them. He carried my great-coat and umbrella a few miles."

"*Fraserburgh, July 20th.*

"Fraserburgh is the same dull place which [Auntie] Mary and Jeannie found it. As I am travelling along the coast which they are acquainted with, you had better cause Robert to bring down the map from Edinburgh; and it will be a good exercise in geography for the

young folks to trace my course. I hope they have entered upon the writing. The library will afford abundance of excellent books, which I wish you would employ a little. I hope you are doing me the favour to go much out with the boys, which will do you much good and prevent them from getting so very much overheated."

## [*To the Boys — Printed.*]

"When I had last the pleasure of writing to you, your dear little brother James and your sweet little sister Mary were still with us. But it has pleased God to remove them to another and a better world, and we must submit to the will of Providence. I must, however, request of you to think sometimes upon them, and to be very careful not to do anything that will displease or vex your mother. It is therefore proper that you do not roamp [Scottish indeed] too much about, and that you learn your lessons.

" . . . I went to Fraserburgh and visited Kinnaird Head Lighthouse, which I found in good order. All this time I travelled upon good roads, and paid many a toll-man by the way; but from Fraserburgh to Banff there is no toll-bars, and the road is so bad that I had to walk up and down many a hill, and for want of bridges the horses had to drag the chaise up to the middle of the wheels in water. At Banff I saw a large ship of 300 tons lying on the sands upon her beam-ends, and a wreck for want of a good harbour. Captain Wilson — to whom I beg my compliments — will show you a ship of 300 tons. At the towns of Macduff, Banff, and Portsoy, many of the houses are built of marble, and the rocks on this part of the coast or sea-side are marble. But, my dear Boys, unless marble be polished and dressed, it is a very coarse-looking stone, and has no more beauty than common rock. As a proof of this, ask the favour of your mother to take you to Thomson's Marble Works in South Leith, and you will see marble in all its stages, and perhaps you may there find Portsoy marble! The use I wish to make of this is to tell you that, without education, a man is just like a block of rough, unpolished marble. Notice, in proof of this, how much Mr. Neill and Mr. M'Gregor [the tutor] know, and observe how little a man knows who is not a good scholar. On my way to Fochabers I passed through many thousand acres of Fir timber, and saw many deer running in these woods."

[*To Mrs. Stevenson.*]

"*Inverness, July 21st.*

"I propose going to church in the afternoon, and as I have breakfasted late, I shall afterwards take a walk, and dine about six o'clock. I do not know who is the clergyman here, but I shall think of you all. I travelled in the mail-coach [from Banff] almost alone. While it was daylight I kept the top, and the passing along a country I had never before seen was a considerable amusement. But, my dear, you are all much in my thoughts, and many are the objects which recall the recollection of our tender and engaging children we have so recently lost. We must not, however, repine. I could not for a moment wish any change of circumstances in their case; and in every comparative view of their state, I see the Lord's goodness in removing them from an evil world to an abode of bliss; and I must earnestly hope that you may be enabled to take such a view of this affliction as to live in the happy prospect of our all meeting again to part no more—and that under such considerations you are getting up your spirits. I wish you would walk about, and by all means go to town, and do not sit much at home."

"*Inverness, July 23rd.*

"I am duly favoured with your much-valued letter, and I am happy to find that you are so much with my mother, because that sort of variety has a tendency to occupy the mind, and to keep it from brooding too much upon one subject. Sensibility and tenderness are certainly two of the most interesting and pleasing qualities of the mind. These qualities are also none of the least of the many endearingments of the female character. But if that kind of sympathy and pleasing melancholy, which is familiar to us under distress, be much indulged, it becomes habitual, and takes such a hold of the mind as to absorb all the other affections, and unfit us for the duties and proper enjoyments of life. Resignation sinks into a kind of peevish discontent. I am far, however, from thinking there is the least danger of this in your case, my dear; for you have been on all occasions enabled to look upon the fortunes of this life as under the direction of a higher power, and have always preserved that propriety and consistency of conduct in all circumstances which endears your example to your family in particular,

and to your friends. I am therefore, my dear, for you to go out much, and to go to the house up-stairs [he means to go up-stairs in the house, to visit the place of the dead children], and to put yourself in the way of the visits of your friends. I wish you would call on the Miss Grays, and it would be a good thing upon a Saturday to dine with my mother, and take Meggy and all the family with you, and let them have their strawberries in town. The tickets of one of the *old-fashioned coaches* would take you all up, and if the evening were good, they could all walk down, excepting Meggy and little David."

*"Inverness, July 25th, 11 p. m.*

"Captain Wemyss, of Wemyss, has come to Inverness to go the voyage with me, and as we are sleeping in a double-bedded room, I must no longer transgress. You must remember me the best way you can to the children."

*"On board of the Lighthouse Yacht, July 29th.*

"I got to Cromarty yesterday about mid-day, and went to church. It happened to be the sacrament there, and I heard a Mr. Smith at that place conclude the service with a very suitable exhortation. There seemed a great concourse of people, but they had rather an unfortunate day for them at the tent, as it rained a good deal. After drinking tea at the inn, Captain Wemyss accompanied me on board, and we sailed about eight last night. The wind at present being rather a beating one, I think I shall have an opportunity of standing into the bay of Wick, and leaving this letter to let you know my progress and that I am well."

*"Lighthouse Yacht, Stornoway, August 4th.*

"To-day we had prayers on deck as usual when at sea. I read the 14th chapter, I think, of Job. Captain Wemyss has been in the habit of doing this on board his own ship, agreeably to the Articles of War. Our passage round the Cape [Cape Wrath] was rather a cross one, and as the wind was northerly, we had a pretty heavy sea, but upon the whole have made a good passage, leaving many vessels behind us in Orkney. I am quite well, my dear; and Captain Wemyss, who has much spirit, and who is much given to observation, and a perfect en-

thusiast in his profession, enlivens the voyage greatly. Let me entreat you to move about much, and take a walk with the boys to Leith. I think they have still many places to see there, and I wish you would indulge them in this respect. Mr. Scales is the best person I know for showing them the sailcloth-weaving, etc., and he would have great pleasure in undertaking this. My dear, I trust soon to be with you, and that through the goodness of God we shall meet all well.

"There are two vessels lying here with emigrants for America, each with eighty people on board, at all ages, from a few days to upwards of sixty! Their prospects must be very forlorn to go with a slender purse for distant and unknown countries."

"*Lighthouse Yacht, off Greenock, Aug.* 18*th*.

"It was after *church-time* before we got here, but we had prayers upon deck on the way up the Clyde. This has, upon the whole, been a very good voyage, and Captain Wemyss, who enjoys it much, has been an excellent companion; we met with pleasure, and shall part with regret."

Strange that, after his long experience, my grandfather should have learned so little of the attitude and even the dialect of the spiritually-minded; that after forty-four years in a most religious circle, he could drop without sense of incongruity from a period of accepted phrases to "trust his wife was *getting up her spirits,*" or think to reassure her as to the character of Captain Wemyss by mentioning that he had read prayers on the deck of his frigate "*agreeably to the Articles of War*"! Yet there is no doubt — and it is one of the most agreeable features of the kindly series — that he was doing his best to please, and there is little doubt that he succeeded. Almost all my grandfather's private letters have been destroyed. This correspondence has not only been preserved entire, but stitched up in the same covers with the works of the godly women, the Rever-

end John Campbell, and the painful Mrs. Ogle. I did not think to mention the good dame, but she comes in usefully as an example. Amongst the treasures of the ladies of my family, her letters have been honoured with a volume to themselves. I read about a half of them myself; then handed over the task to one of stauncher resolution, with orders to communicate any fact that should be found to illuminate these pages. Not one was found; it was her only art to communicate by post second-rate sermons at second-hand; and such, I take it, was the correspondence in which my grandmother delighted. If I am right, that of Robert Stevenson, with his quaint smack of the contemporary *Sandford and Merton*, his interest in the whole page of experience, his perpetual quest and fine scent of all that seems romantic to a boy, his needless pomp of language, his excellent good sense, his unfeigned, unstained, unwearied human kindliness, would seem to her, in a comparison, dry and trivial and worldly. And if these letters were by an exception cherished and preserved, it would be for one or both of two reasons — because they dealt with and were bitter-sweet reminders of a time of sorrow; or because she was pleased, perhaps touched, by the writer's guileless efforts to seem spiritually-minded.

After this date there were two more births and two more deaths, so that the number of the family remained unchanged; in all five children survived to reach maturity and to outlive their parents.

## CHAPTER II

### THE SERVICE OF THE NORTHERN LIGHTS

I

It were hard to imagine a contrast more sharply defined than that between the lives of the men and women of this family: the one so chambered, so centred in the affections and the sensibilities; the other so active, healthy, and expeditious. From May to November, Thomas Smith and Robert Stevenson were on the mail, in the saddle, or at sea; and my grandfather, in particular, seems to have been possessed with a demon of activity in travel. In 1802, by direction of the Northern Lighthouse Board, he had visited the coast of England from St. Bees, in Cumberland, and round by the Scilly Islands to some place undecipherable by me; in all a distance of 2500 miles. In 1806 I find him starting "on a tour round the South Coast of England, from the Humber to the Severn." Peace was not long declared ere he found means to visit Holland, where he was in time to see, in the navy-yard at Helvoetsluys, "about twenty of Bonaparte's *English flotilla* lying in a state of decay, the object of curiosity to Englishmen." By 1834 he seems to have been acquainted with the coast of France from Dieppe to Bordeaux; and a main

part of his duty as Engineer to the Board of Northern Lights was one round of dangerous and laborious travel.

In 1786, when Thomas Smith first received the appointment, the extended and formidable coast of Scotland was lighted at a single point — the Isle of May, in the jaws of the Firth of Forth, where, on a tower already a hundred and fifty years old, an open coal-fire blazed in an iron chauffer. The whole archipelago, thus nightly plunged in darkness, was shunned by seagoing vessels, and the favourite courses were north about Shetland and west about St. Kilda. When the Board met, four new lights formed the extent of their intentions — Kinnaird Head in Aberdeenshire, at the eastern elbow of the coast; North Ronaldsay, in Orkney, to keep the north and guide ships passing to the south'ard of Shetland; Island Glass, on Harris, to mark the inner shore of the Hebrides and illuminate the navigation of the Minch; and the Mull of Kintyre. These works were to be attempted against obstacles, material and financial, that might have staggered the most bold. Smith had no ship at his command till 1791; the roads in those outlandish quarters where his business lay were scarce passable when they existed, and the tower on the Mull of Kintyre stood eleven months unlighted while the apparatus toiled and foundered by the way among rocks and mosses. Not only had towers to be built and apparatus transplanted, the supply of oil must be maintained, and the men fed, in the same inaccessible and distant scenes; a whole service, with its routine and hierarchy, had to be called out of nothing; and a new trade (that of lightkeeper) to be taught, recruited,

and organized. The funds of the Board were at the first laughably inadequate. They embarked on their career on a loan of twelve hundred pounds, and their income in 1789, after relief by a fresh Act of Parliament, amounted to less than three hundred. It must be supposed that the thoughts of Thomas Smith, in these early years, were sometimes coloured with despair; and since he built and lighted one tower after another, and created and bequeathed to his successors the elements of an excellent administration, it may be conceded that he was not after all an unfortunate choice for a first engineer.

War added fresh complications. In 1794 Smith came "very near to be taken" by a French squadron. In 1813 Robert Stevenson was cruising about the neighbourhood of Cape Wrath in the immediate fear of Commodore Rogers. The men, and especially the sailors, of the Lighthouse service must be protected by a medal and ticket from the brutal activity of the press-gang. And the zeal of volunteer patriots was at times embarrassing.

"I set off on foot," writes my grandfather, "for Marazion, a town at the head of Mount's Bay, where I was in hopes of getting a boat to freight. I had just got that length, and was making the necessary inquiry, when a young man, accompanied by several idle-looking fellows, came up to me, and in a hasty tone said, 'Sir, in the king's name I seize your person and papers.' To which I replied that I should be glad to see his authority, and know the reason of an address so abrupt. He told me the want of time prevented his taking regular steps, but that it would be necessary for me to return to Penzance, as I was suspected of being a French spy. I proposed to submit my papers to the nearest Justice of Peace, who was immediately applied to, and came to the inn where I was. He seemed to be greatly agitated, and quite at

a loss how to proceed. The complaint preferred against me was "that I had examined the Longships Lighthouse with the most minute attention, and was no less particular in my inquiries at the keepers of the lighthouse regarding the sunk rocks lying off the Land's End, with the sets of the currents and tides along the coast: that I seemed particularly to regret the situation of the rocks called the Seven Stones, and the loss of a beacon which the Trinity Board had caused to be fixed on the Wolf Rock; that I had taken notes of the bearings of several sunk rocks, and a drawing of the lighthouse, and of Cape Cornwall. Further, that I had refused the honour of Lord Edgecombe's invitation to dinner, offering as an apology that I had some particular business on hand.'"

My grandfather produced in answer his credentials and letter of credit; but the justice, after perusing them, "very gravely observed that they were 'musty bits of paper,'" and proposed to maintain the arrest. Some more enlightened magistrates at Penzance relieved him of suspicion and left him at liberty to pursue his journey,—"which I did with so much eagerness," he adds, "that I gave the two coal lights on the Lizard only a very transient look."

Lighthouse operations in Scotland differed essentially in character from those in England. The English coast is in comparison a habitable, homely place, well supplied with towns; the Scottish presents hundreds of miles of savage islands and desolate moors. The Parliamentary committee of 1834, profoundly ignorant of this distinction, insisted with my grandfather that the work at the various stations should be let out on contract "in the neighbourhood," where sheep and deer, and gulls and cormorants, and a few ragged gillies, perhaps crouching in a bee-hive house, made up the only neighbours. In such situations repairs and improve-

ments could only be overtaken by collecting (as my grandfather expressed it) a few "lads," placing them under charge of a foreman, and despatching them about the coast as occasion served. The particular danger of these seas increased the difficulty. The course of the lighthouse tender lies amid iron-bound coasts, among tide-races, the whirlpools of the Pentland Firth, flocks of islands, flocks of reefs, many of them uncharted. The aid of steam was not yet. At first in random coasting sloop, and afterwards in the cutter belonging to the service, the engineer must ply and run amongst these multiplied dangers, and sometimes late into the stormy autumn. For pages together my grandfather's diary preserves a record of these rude experiences; of hard winds and rough seas; and of "the try-sail and storm-jib, those old friends which I never like to see." They do not tempt to quotation, but it was the man's element, in which he lived, and delighted to live, and some specimen must be presented. On Friday, Sept. 10th, 1830, the *Regent* lying in Lerwick Bay, we have this entry: "The gale increases, with continued rain." On the morrow, Saturday, 11th, the weather appeared to moderate, and they put to sea, only to be driven by evening into Levenswick. There they lay, "rolling much," with both anchors ahead and the square yard on deck, till the morning of Saturday, 18th. Saturday and Sunday they were plying to the southward with a "strong breeze and a heavy sea," and on Sunday evening anchored in Otterswick. "Monday, 20th, it blows so fresh that we have no communication with the shore. We see Mr. Rome on the beach, but we cannot communicate with him. It blows 'mere fire,' as the sailors

express it." And for three days more the diary goes on with tales of davits unshipped, high seas, strong gales from the southward, and the ship driven to refuge in Kirkwall or Deer Sound. I have many a passage before me to transcribe, in which my grandfather draws himself as a man of exactitude about minute and anxious details. It must not be forgotten that these voyages in the tender were the particular pleasure and reward of his existence; that he had in him a reserve of romance which carried him delightedly over these hardships and perils; that to him it was "great gain" to be eight nights and seven days in the savage bay of Levenswick — to read a book in the much agitated cabin — to go on deck and hear the gale scream in his ears, and see the landscape dark with rain, and the ship plunge at her two anchors — and to turn in at night and wake again at morning, in his narrow berth, to the clamorous and continued voices of the gale.

His perils and escapes were beyond counting. I shall only refer to two: the first, because of the impression made upon himself; the second, from the incidental picture it presents of the north islanders. On the 9th October 1794 he took passage from Orkney in the sloop *Elizabeth* of Stromness. She made a fair passage till within view of Kinnaird Head, where, as she was becalmed some three miles in the offing, and wind seemed to threaten from the south-east, the captain landed him, to continue his journey more expeditiously ashore. A gale immediately followed, and the *Elizabeth* was driven back to Orkney and lost with all hands. The second escape I have been in the habit of hearing related by an eye-witness, my own father, from the

earliest days of childhood. On a September night, the *Regent* lay in the Pentland Firth in a fog and a violent and windless swell. It was still dark, when they were alarmed by the sound of breakers, and an anchor was immediately let go. The peep of dawn discovered them swinging in desperate proximity to the Isle of Swona[1] and the surf bursting close under their stern. There was in this place a hamlet of the inhabitants, fisher-folk and wreckers; their huts stood close about the head of the beach. All slept; the doors were closed, and there was no smoke, and the anxious watchers on board ship seemed to contemplate a village of the dead. It was thought possible to launch a boat and tow the *Regent* from her place of danger; and with this view a signal of distress was made and a gun fired with a red-hot poker from the galley. Its detonation awoke the sleepers. Door after door was opened, and in the grey light of the morning fisher after fisher was seen to come forth, yawning and stretching himself, nightcap on head. Fisher after fisher, I wrote, and my pen tripped; for it should rather stand wrecker after wrecker. There was no emotion, no animation, it scarce seemed any interest; not a hand was raised; but all callously awaited the harvest of the sea, and their children stood by their side and waited also. To the end of his life, my father remembered that amphitheatre of placid spectators on the beach, and with a special and natural animosity, the boys of his own age. But presently a light air sprang up, and filled the sails, and fainted, and filled

[1] This is only a probable hypothesis; I have tried to identify my father's anecdote in my grandfather's diary, and may very well have been deceived.—[R. L. S.]

them again; and little by little the *Regent* fetched way against the swell, and clawed off shore into the turbulent firth.

The purpose of these voyages was to effect a landing on open beaches or among shelving rocks, not for persons only, but for coals and food, and the fragile furniture of light-rooms. It was often impossible. In 1831 I find my grandfather "hovering for a week" about the Pentland Skerries for a chance to land; and it was almost always difficult. Much knack and enterprise were early developed among the seamen of the service; their management of boats is to this day a matter of admiration; and I find my grandfather in his diary depicting the nature of their excellence in one happily descriptive phrase, when he remarks that Captain Soutar had landed "the small stores and nine casks of oil *with all the activity of a smuggler*." And it was one thing to land, another to get on board again. I have here a passage from the diary, where it seems to have been touch-and-go. "I landed at Tarbetness, on the eastern side of the point, in *a mere gale or blast of wind* from west-south-west, at 2 p.m. It blew so fresh that the captain, in a kind of despair, went off to the ship, leaving myself and the steward ashore. While I was in the light-room, I felt it shaking and waving, not with the tremor of the Bell Rock, but with the *waving of a tree!* This the lightkeepers seemed to be quite familiar to, the principal keeper remarking that 'it was very pleasant,' perhaps meaning interesting or curious. The captain worked the vessel into smooth water with admirable dexterity, and I got on board again about 6 p.m. from the other side of the point." But not even the dexterity

of Soutar could prevail always; and my grandfather must at times have been left in strange berths and with but rude provision. I may instance the case of my father, who was storm-bound three days upon an islet, sleeping in the uncemented and unchimneyed houses of the islanders, and subsisting on a diet of nettle-soup and lobsters.

The name of Soutar has twice escaped my pen, and I feel I owe him a vignette. Soutar first attracted notice as mate of a praam at the Bell Rock, and rose gradually to be captain of the *Regent.* He was active, admirably skilled in his trade, and a man incapable of fear. Once, in London, he fell among a gang of confidence-men, naturally deceived by his rusticity and his prodigious accent. They plied him with drink,—a hopeless enterprise, for Soutar could not be made drunk; they proposed cards, and Soutar would not play. At last, one of them, regarding him with a formidable countenance, inquired if he were not frightened? "I'm no' very easy fleyed," replied the captain. And the rooks withdrew after some easier pigeon. So many perils shared, and the partial familiarity of so many voyages, had given this man a stronghold in my grandfather's estimation; and there is no doubt but he had the art to court and please him with much hypocritical skill. He usually dined on Sundays in the cabin. He used to come down daily after dinner for a glass of port or whisky, often in his full rig of sou'-wester, oilskins, and long boots; and I have often heard it described how insinuatingly he carried himself on these appearances, artfully combining the extreme of deference with a blunt and seamanlike demeanour. My father and uncles, with the devilish

penetration of the boy, were far from being deceived; and my father, indeed, was favoured with an object-lesson not to be mistaken. He had crept one rainy night into an apple-barrel on deck, and from this place of ambush overheard Soutar and a comrade conversing in their oilskins. The smooth sycophant of the cabin had wholly disappeared, and the boy listened with wonder to a vulgar and truculent ruffian. Of Soutar, I may say *tantum vidi*, having met him in the Leith docks now more than thirty years ago, when he abounded in the praises of my grandfather, encouraged me (in the most admirable manner) to pursue his footprints, and left impressed for ever on my memory the image of his own Bardolphian nose. He died not long after.

The engineer was not only exposed to the hazards of the sea; he must often ford his way by land to remote and scarce accessible places, beyond reach of the mail or the post-chaise, beyond even the tracery of the bridle-path, and guided by natives across bog and heather. Up to 1807 my grandfather seems to have travelled much on horseback; but he then gave up the idea—"such," he writes with characteristic emphasis and capital letters, "is the Plague of Baiting." He was a good pedestrian; at the age of fifty-eight I find him covering seventeen miles over the moors of the Mackay country in less than seven hours, and that is not bad travelling for a scramble. The piece of country traversed was already a familiar track, being that between Loch Eriboll and Cape Wrath; and I think I can scarce do better than reproduce from the diary some traits of his first visit. The tender lay in Loch Eriboll; by five in the morning they sat down to breakfast on board;

by six they were ashore — my grandfather, Mr. Slight, an assistant, and Soutar of the jolly nose, and had been taken in charge by two young gentlemen of the neighbourhood and a pair of gillies. About noon they reached the Kyle of Durness and passed the ferry. By half-past three they were at Cape Wrath — not yet known by the emphatic abbreviation of "The Cape," — and beheld upon all sides of them unfrequented shores, an expanse of desert moor, and the high-piled Western Ocean. The site of the tower was chosen. Perhaps it is by inheritance of blood, but I know few things more inspiriting than this location of a lighthouse in a designated space of heather and air, through which the sea-birds are still flying. By 9 p.m. the return journey had brought them again to the shores of the Kyle. The night was dirty, and as the sea was high and the ferry-boat small, Soutar and Mr. Stevenson were left on the far side, while the rest of the party embarked and were received into the darkness. They made, in fact, a safe though an alarming passage; but the ferryman refused to repeat the adventure; and my grandfather and the captain long paced the beach, impatient for their turn to pass, and tormented with rising anxiety as to the fate of their companions. At length they sought the shelter of a shepherd's house. "We had miserable up-putting," the diary continues, "and on both sides of the ferry much anxiety of mind. Our beds were clean straw, and but for the circumstance of the boat, I should have slept as soundly as ever I did after a walk through moss and mire of sixteen hours."

To go round the lights, even to-day, is to visit past centuries. The tide of tourists that flows yearly in Scot-

land, vulgarizing all where it approaches, is still defined by certain barriers. It will be long ere there is a hotel at Sumburgh or a hydropathic at Cape Wrath; it will be long ere any *char-à-banc*, laden with tourists, shall drive up to Barra Head or Monach, the Island of the Monks. They are farther from London than St. Petersburg, and except for the towers, sounding and shining all night with fog-bells and the radiance of the light-room, glittering by day with the trivial brightness of white paint, these island and moorland stations seem inaccessible to the civilization of to-day, and even to the end of my grandfather's career the isolation was far greater. There ran no post at all in the Long Island; from the lighthouse on Barra Head a boat must be sent for letters as far as Tobermory, between sixty and seventy miles of open sea; and the posts of Shetland, which had surprised Sir Walter Scott in 1814, were still unimproved in 1833, when my grandfather reported on the subject. The group contained at the time a population of 30,000 souls, and enjoyed a trade which had increased in twenty years seven-fold, to between three and four thousand tons. Yet the mails were despatched and received by chance coasting vessels at the rate of a penny a letter; six and eight weeks often elapsed between opportunities, and when a mail was to be made up, sometimes at a moment's notice, the bellman was sent hastily through the streets of Lerwick. Between Shetland and Orkney, only seventy miles apart, there was "no trade communication whatever."

Such was the state of affairs, only sixty years ago, with the three largest clusters of the Scottish Archipelago; and forty-seven years earlier, when Thomas Smith

began his rounds, or forty-two, when Robert Stevenson became conjoined with him in these excursions, the barbarism was deep, the people sunk in superstition, the circumstances of their life perhaps unique in history. Lerwick and Kirkwall, like Guam or the Bay of Islands, were but barbarous ports where whalers called to take up and to return experienced seamen. On the outlying islands the clergy lived isolated, thinking other thoughts, dwelling in a different country from their parishioners, like missionaries in the South Seas. My grandfather's unrivalled treasury of anecdote was never written down; it embellished his talk while he yet was, and died with him when he died; and such as have been preserved relate principally to the islands of Ronaldsay and Sanday, two of the Orkney group. These bordered on one of the water-highways of civilization; a great fleet passed annually in their view, and of the shipwrecks of the world they were the scene and cause of a proportion wholly incommensurable to their size. In one year, 1798, my grandfather found the remains of no fewer than five vessels on the isle of Sanday, which is scarcely twelve miles long.

"Hardly a year passed," he writes, "without instances of this kind; for, owing to the projecting points of this strangely formed island, the lowness and whiteness of its eastern shores, and the wonderful manner in which the scanty patches of land are intersected with lakes and pools of water, it becomes, even in daylight, a deception, and has often been fatally mistaken for an open sea. It had even become proverbial with some of the inhabitants to observe that 'if wrecks were to happen, they might as well be sent to the poor isle of Sanday as anywhere else.' On this and the neighbouring islands the inhabitants have certainly had their share of wrecked goods, for the eye is presented with these melancholy remains in almost every form. For example, although quarries

are to be met with generally in these islands, and the stones are very suitable for building dykes (*Anglicè*, walls), yet instances occur of the land being enclosed, even to a considerable extent, with ship-timbers. The author has actually seen a park (*Anglicè*, meadow) paled round chiefly with cedar-wood and mahogany from the wreck of a Honduras-built ship; and in one island, after the wreck of a ship laden with wine, the inhabitants have been known to take claret to their barley-meal porridge. On complaining to one of the pilots of the badness of his boat's sails, he replied to the author with some degree of pleasantry, 'Had it been His will that you camena' here wi' your lights, we might 'a' had better sails to our boats, and more o' other things.' It may further be mentioned that when some of Lord Dundas's farms are to be let in these islands a competition takes place for the lease, and it is *bona fide* understood that a much higher rent is paid than the lands would otherwise give were it not for the chance of making considerably by the agency and advantages attending shipwrecks on the shores of the respective farms."

The people of North Ronaldsay still spoke Norse, or, rather, mixed it with their English. The walls of their huts were built to a great thickness of rounded stones from the sea-beach; the roof flagged, loaded with earth, and perforated by a single hole for the escape of smoke. The grass grew beautifully green on the flat house-top, where the family would assemble with their dogs and cats, as on a pastoral lawn; there were no windows, and, in my grandfather's expression, "there was really no demonstration of a house unless it were the diminutive door." He once landed on Ronaldsay with two friends. "The inhabitants crowded and pressed so much upon the strangers that the bailiff, or resident factor of the island, blew with his ox-horn, calling out to the natives to stand off and let the gentlemen come forward to the laird; upon which one of the islanders, as spokesman, called out, 'God ha'e us, man! thou needsna

mak' sic a noise. It's no' every day we ha'e *three hatted men* on our isle.'" When the Surveyor of Taxes came (for the first time, perhaps) to Sanday, and began in the King's name to complain of the unconscionable swarms of dogs, and to menace the inhabitants with taxation, it chanced that my grandfather and his friend, Dr. Patrick Neill, were received by an old lady in a Ronaldsay hut. Her hut, which was similar to the model described, stood on a Ness, or point of land jutting into the sea. They were made welcome in the firelit cellar, placed "in *casey* or straw-worked chairs, after the Norwegian fashion, with arms, and a canopy overhead," and given milk in a wooden dish. These hospitalities attended to, the old lady turned at once to Dr. Neill, whom she took for the Surveyor of Taxes. "Sir," said she, "gin ye'll tell the King that I canna keep the Ness free o' the Bangers (sheep) without twa hun's, and twa guid hun's too, he'll pass me threa the tax on dugs."

This familiar confidence, these traits of engaging simplicity, are characters of a secluded people. Mankind — and, above all, islanders — come very swiftly to a bearing, and find very readily, upon one convention or another, a tolerable corporate life. The danger is to those from without, who have not grown up from childhood in the islands, but appear suddenly in that narrow horizon, life-sized apparitions. For these no bond of humanity exists, no feeling of kinship is awakened by their peril; they will assist at a shipwreck, like the fisher-folk of Lunga, as spectators, and when the fatal scene is over, and the beach strewn with dead bodies, they will fence their fields with mahogany, and, after a decent grace, sup claret to their porridge. It is

not wickedness: it is scarce evil; it is only, in its highest power, the sense of isolation and the wise disinterestedness of feeble and poor races. Think how many viking ships had sailed by these islands in the past, how many vikings had landed, and raised turmoil, and broken up the barrows of the dead, and carried off the wines of the living; and blame them, if you are able, for that belief (which may be called one of the parables of the devil's gospel) that a man rescued from the sea will prove the bane of his deliverer. It might be thought that my grandfather, coming there unknown, and upon an employment so hateful to the inhabitants, must have run the hazard of his life. But this were to misunderstand. He came franked by the laird and the clergyman; he was the King's officer; the work was "opened with prayer by the Rev. Walter Trail, minister of the parish"; God and the King had decided it, and the people of these pious islands bowed their heads. There landed, indeed, in North Ronaldsay, during the last decade of the eighteenth century, a traveller whose life seems really to have been imperilled. A very little man of a swarthy complexion, he came ashore, exhausted and unshaved, from a long boat passage, and lay down to sleep in the home of the parish schoolmaster. But he had been seen landing. The inhabitants had identified him for a Pict, as, by some singular confusion of name, they call the dark and dwarfish aboriginal people of the land. Immediately the obscure ferment of a race-hatred, grown into a superstition, began to work in their bosoms, and they crowded about the house and the room-door with fearful whisperings. For some time the schoolmaster held them at bay, and

at last despatched a messenger to call my grandfather. He came: he found the islanders beside themselves at this unwelcome resurrection of the dead and the detested; he was shown, as adminicular of testimony, the traveller's uncouth and thick-soled boots; he argued, and finding argument unavailing, consented to enter the room and examine with his own eyes the sleeping Pict. One glance was sufficient: the man was now a missionary, but he had been before that an Edinburgh shopkeeper with whom my grandfather had dealt. He came forth again with this report, and the folk of the island, wholly relieved, dispersed to their own houses. They were timid as sheep and ignorant as limpets; that was all. But the Lord deliver us from the tender mercies of a frightened flock!

I will give two more instances of their superstition. When Sir Walter Scott visited the Stones of Stennis, my grandfather put in his pocket a hundred-foot line, which he unfortunately lost.

"Some years afterwards," he writes, "one of my assistants on a visit to the Stones of Stennis took shelter from a storm in a cottage close by the lake; and seeing a box-measuring-line in the bole or sole of the cottage window, he asked the woman where she got this well-known professional appendage. She said: 'O sir, ane of the bairns fand it lang syne at the Stanes; and when drawing it out we took fright, and thinking it had belanged to the fairies, we threw it into the bole, and it has layen there ever since.'"

This is for the one; the last shall be a sketch by the master hand of Scott himself:—

"At the village of Stromness, on the Orkney main island, called Pomona, lived, in 1814, an aged dame called Bessie Millie, who helped

out her subsistence by selling favourable winds to mariners. He was a venturous master of a vessel who left the roadstead of Stromness without paying his offering to propitiate Bessie Millie! Her fee was extremely moderate, being exactly sixpence, for which she boiled her kettle and gave the bark the advantage of her prayers, for she disclaimed all unlawful acts. The wind thus petitioned for was sure, she said, to arrive, though occasionally the mariners had to wait some time for it. The woman's dwelling and appearance were not unbecoming her pretensions. Her house, which was on the brow of the steep hill on which Stromness is founded, was only accessible by a series of dirty and precipitous lanes, and for exposure might have been the abode of Eolus himself, in whose commodities the inhabitant dealt. She herself was, as she told us, nearly one hundred years old, withered and dried up like a mummy. A clay-coloured kerchief, folded round her neck, corresponded in colour to her corpse-like complexion. Two light blue eyes that gleamed with a lustre like that of insanity, an utterance of astonishing rapidity, a nose and chin that almost met together, and a ghastly expression of cunning, gave her the effect of Hecate. Such was Bessie Millie, to whom the mariners paid a sort of tribute with a feeling between jest and earnest."

## II

FROM about the beginning of the century up to 1807 Robert Stevenson was in partnership with Thomas Smith. In the last-named year the partnership was dissolved; Thomas Smith returning to his business, and my grandfather becoming sole engineer to the Board of Northern Lights.

I must try, by excerpts from his diary and correspondence, to convey to the reader some idea of the ardency and thoroughness with which he threw himself into the largest and least of his multifarious engagements in this service. But first I must say a word or two upon the life of lightkeepers, and the temptations to which

they are more particularly exposed. The lightkeeper occupies a position apart among men. In sea-towers the complement has always been three since the deplorable business in the Eddystone, when one keeper died, and the survivor, signalling in vain for relief, was compelled to live for days with the dead body. These usually pass their time by the pleasant human expedient of quarrelling; and sometimes, I am assured, not one of the three is on speaking terms with any other. On shore stations, which on the Scottish coast are sometimes hardly less isolated, the usual number is two, a principal and an assistant. The principal is dissatisfied with the assistant, or perhaps the assistant keeps pigeons, and the principal wants the water from the roof. Their wives and families are with them, living cheek by jowl. The children quarrel; Jockie hits Jimsie in the eye, and the mothers make haste to mingle in the dissension. Perhaps there is trouble about a broken dish; perhaps Mrs. Assistant is more highly born than Mrs. Principal and gives herself airs; and the men are drawn in and the servants presently follow. "Church privileges have been denied the keeper's and the assistant's servants," I read in one case, and the eminently Scots periphrasis means neither more nor less than excommunication, "on account of the discordant and quarrelsome state of the families. The cause, when inquired into, proves to be *tittle-tattle* on both sides." The tender comes round; the foremen and artificers go from station to station; the gossip flies through the whole system of the service, and the stories, disfigured and exaggerated, return to their own birthplace with the returning tender. The English Board was appar-

ently shocked by the picture of these dissensions. "When the Trinity House can," I find my grandfather writing at Beechy Head, in 1834, "they do not appoint two keepers, they disagree so ill. A man who has a family is assisted by his family; and in this way, to my experience and present observation, the business is very much neglected. One keeper is, in my view, a bad system. This day's visit to an English lighthouse convinces me of this, as the lightkeeper was walking on a staff with the gout, and the business performed by one of his daughters, a girl of thirteen or fourteen years of age." This man received a hundred a year! It shows a different reading of human nature, perhaps typical of Scotland and England, that I find in my grandfather's diary the following pregnant entry: "*The lightkeepers, agreeing ill, keep one another to their duty.*" But the Scottish system was not alone founded on this cynical opinion. The dignity and the comfort of the northern lightkeeper were both attended to. He had a uniform to "raise him in his own estimation, and in that of his neighbour, which is of consequence to a person of trust. The keepers," my grandfather goes on, in another place, "are attended to in all the detail of accommodation in the best style as shipmasters; and this is believed to have a sensible effect upon their conduct, and to regulate their general habits as members of society." He notes, with the same dip of ink, that "the brasses were not clean, and the persons of the keepers not *trig*"; and thus we find him writing to a culprit: "I have to complain that you are not cleanly in your person, and that your manner of speech is ungentle, and rather inclines to rudeness. You must therefore take a different view of

your duties as a lightkeeper." A high ideal for the service appears in these expressions, and will be more amply illustrated further on. But even the Scottish lightkeeper was frail. During the unbroken solitude of the winter months, when inspection is scarce possible, it must seem a vain toil to polish the brass hand-rail of the stair, or to keep an unrewarded vigil in the lightroom; and the keepers are habitually tempted to the beginnings of sloth, and must unremittingly resist. He who temporises with his conscience is already lost. I must tell here an anecdote that illustrates the difficulties of inspection. In the days of my uncle David and my father there was a station which they regarded with jealousy. The two engineers compared notes and were agreed. The tower was always clean, but seemed always to bear traces of a hasty cleansing, as though the keepers had been suddenly forewarned. On inquiry, it proved that such was the case, and that a wandering fiddler was the unfailing harbinger of the engineer. At last my father was storm-stayed one Sunday in a port at the other side of the island. The visit was quite overdue, and as he walked across upon the Monday morning he promised himself that he should at last take the keepers unprepared. They were both waiting for him in uniform at the gate; the fiddler had been there on Saturday!

My grandfather, as will appear from the following extracts, was much a martinet, and had a habit of expressing himself on paper with an almost startling emphasis. Personally, with his powerful voice, sanguine countenance, and eccentric and original locutions, he

was well qualified to inspire a salutary terror in the service.

"I find that the keepers have, by some means or another, got into the way of cleaning too much with rotten-stone and oil. I take the principal keeper to *task* on this subject, and make him bring a clean towel and clean one of the brazen frames, which leaves the towel in an odious state. This towel I put up in a sheet of paper, seal, and take with me to confront Mr. Murdoch, who has just left the station." "This letter"— a stern enumeration of complaints — "to lie a week on the light-room book-place, and to be put in the Inspector's hands when he comes round." "It is the most painful thing that can occur for me to have a correspondence of this kind with any of the keepers; and when I come to the Lighthouse, instead of having the satisfaction to meet them with approbation, it is distressing when one is obliged to put on a most angry countenance and demeanour; but from such culpable negligence as you have shown there is no avoiding it. I hold it as a fixed maxim that, when a man or a family put on a slovenly appearance in their houses, stairs, and lanterns, I always find their reflectors, burners, windows, and light in general, ill attended to; and, therefore, I must insist on cleanliness throughout." "I find you very deficient in the duty of the high tower. You thus place your appointment as Principal Keeper in jeopardy; and I think it necessary, as an old servant of the Board, to put you upon your guard once for all at this time. I call upon you to recollect what was formerly and is now said to you. The state of the backs of the reflectors at the high tower was disgraceful, as I pointed out to you on the spot. They were as if spitten upon, and greasy finger-marks upon the back straps. I demand an explanation of this state of things." "The cause of the Commissioners dismissing you is expressed in the minute; and it must be a matter of regret to you that you have been so much engaged in smuggling, and also that the Reports relative to the cleanliness of the Lighthouse, upon being referred to, rather added to their unfavourable opinion." "I do not go into the dwelling-house, but severely chide the lightkeepers for the disagreement that seems to subsist among them." "The families of the two lightkeepers here agree very ill. I have effected a reconciliation for the present." "Things are in a

very *humdrum* state here. There is no painting, and in and out of doors no taste or tidiness displayed. Robert's wife *greets* and M'Gregor's scolds; and Robert is so down-hearted that he says he is unfit for duty. I told him that if he was to mind wives' quarrels, and to take them up, the only way was for him and M'Gregor to go down to the point like Sir G. Grant and Lord Somerset." "I cannot say that I have experienced a more unpleasant meeting than that of the lighthouse folks this morning, or ever saw a stronger example of unfeeling barbarity than the conduct which the ——s exhibited. These two cold-hearted persons, not contented with having driven the daughter of the poor nervous woman from her father's house, *both* kept *pouncing* at her, lest she should forget her great misfortune. Write me of their conduct. Do not make any communication of the state of these families at Kinnaird Head, as this would be like *Tale-bearing.*"

There is the great word out. Tales and Tale-bearing, always with the emphatic capitals, run continually in his correspondence. I will give but two instances: —

"Write to [David one of the lightkeepers] and caution him to be more prudent how he expresses himself. Let him attend his duty to the Lighthouse and his family concerns, and give less heed to Tale-bearers." "I have not your last letter at hand to quote its date; but, if I recollect, it contains some kind of tales, which nonsense I wish you would lay aside, and notice only the concerns of your family and the important charge committed to you."

Apparently, however, my grandfather was not himself inaccessible to the Tale-bearer, as the following indicates: —

"In walking along with Mr. ——, I explain to him that I should be under the necessity of looking more closely into the business here from his conduct at Buddonness, which had given an instance of weakness in the Moral principle which had staggered my opinion of him. His answer was, 'That will be with regard to the lass?' I told him I was to enter no farther with him upon the subject." "Mr. Miller appears

to be master and man. I am sorry about this foolish fellow. Had I known his train, I should not, as I did, have rather forced him into the service. Upon finding the windows in the state they were, I turned upon Mr. Watt, and especially upon Mr. Stewart. The latter did not appear for a length of time to have visited the light-room. On asking the cause — did Mr. Watt and him (*sic*) disagree; he said no; but he had got very bad usage from the assistant, 'who was a very obstreperous man.' I could not bring Mr. Watt to put in language his objections to Miller; all I could get was that, he being your friend, and saying he was unwell, he did not like to complain or to push the man; that the man seemed to have no liking to anything like work; that he was unruly; that, being an educated man, he despised them. I was, however, determined to have out of these *unwilling* witnesses the language alluded to. I fixed upon Mr. Stewart as chief; he hedged. My curiosity increased, and I urged. Then he said, 'What would I think, just exactly, of Mr. Watt being called an Old B——?' You may judge of my surprise. There was not another word uttered. This was quite enough, as coming from a person I should have calculated upon quite different behaviour from. It spoke a volume of the man's mind and want of principle." "Object to the keeper keeping a Bull-Terrier dog of ferocious appearance. It is dangerous, as we land at all times of the night." "Have only to complain of the storehouse floor being spotted with oil. Give orders for this being instantly rectified, so that on my return to-morrow I may see things in good order." "The furniture of both houses wants much rubbing. Mrs. ——'s carpets are absurd beyond anything I have seen. I want her to turn the fenders up with the bottom to the fireplace: the carpets, when not likely to be in use, folded up and laid as a hearthrug partly under the fender."

My grandfather was king in the service to his finger-tips. All should go in his way, from the principal lightkeeper's coat to the assistant's fender, from the gravel in the garden-walks to the bad smell in the kitchen, or the oil-spots on the store-room floor. It might be thought there was nothing more calculated to awake men's resentment, and yet his rule was not more

thorough than it was beneficent. His thought for the keepers was continual, and it did not end with their lives. He tried to manage their successions; he thought no pains too great to arrange between a widow and a son who had succeeded his father; he was often harassed and perplexed by tales of hardship; and I find him writing, almost in despair, of their improvident habits and the destitution that awaited their families upon a death. "The house being completely furnished, they come into possession without necessaries, and they go out NAKED. The insurance seems to have failed, and what next is to be tried?" While they lived he wrote behind their backs to arrange for the education of their children, or to get them other situations if they seemed unsuitable for the Northern Lights. When he was at a lighthouse on a Sunday he held prayers and heard the children read. When a keeper was sick, he lent him his horse and sent him mutton and brandy from the ship. "The assistant's wife having been this morning confined, there was sent ashore a bottle of sherry and a few rusks — a practice which I have always observed in this service," he writes. They dwelt, many of them, in uninhabited isles or desert forelands, totally cut off from shops. Many of them were, besides, fallen into a rustic dishabitude of life, so that even when they visited a city they could scarce be trusted with their own affairs, as (for example) he who carried home to his children, thinking they were oranges, a bag of lemons. And my grandfather seems to have acted, at least in his early years, as a kind of gratuitous agent for the service. Thus I find him writing to a keeper in 1806, when his mind was already pre-occupied with

arrangements for the Bell Rock: "I am much afraid I stand very unfavourably with you as a man of promise, as I was to send several things of which I believe I have more than once got the memorandum. All I can say is that in this respect you are not singular. This makes me no better; but really I have been driven about beyond all example in my past experience, and have been essentially obliged to neglect my own urgent affairs." No servant of the Northern Lights came to Edinburgh but he was entertained at Baxter's Place to breakfast. There, at his own table, my grandfather sat down delightedly with his broad-spoken, homespun officers. His whole relation to the service was, in fact, patriarchal; and I believe I may say that throughout its ranks he was adored. I have spoken with many who knew him; I was his grandson, and their words may have very well been words of flattery; but there was one thing that could not be affected, and that was the look and light that came into their faces at the name of Robert Stevenson.

In the early part of the century the foreman builder was a young man of the name of George Peebles, a native of Anstruther. My grandfather had placed in him a very high degree of confidence, and he was already designated to be foreman at the Bell Rock, when, on Christmas-day 1806, on his way home from Orkney, he was lost in the schooner *Traveller*. The tale of the loss of the *Traveller* is almost a replica of that of the *Elizabeth* of Stromness; like the *Elizabeth* she came as far as Kinnaird Head, was then surprised by a storm, driven back to Orkney, and bilged and sank on the island of Flotta. It seems it was about the dusk of the day when

the ship struck, and many of the crew and passengers were drowned. About the same hour, my grandfather was in his office at the writing-table; and the room beginning to darken, he laid down his pen and fell asleep. In a dream he saw the door open and George Peebles come in, "reeling to and fro, and staggering like a drunken man," with water streaming from his head and body to the floor. There it gathered into a wave which, sweeping forward, submerged my grandfather. Well, no matter how deep; versions vary; and at last he awoke, and behold it was a dream! But it may be conceived how profoundly the impression was written even on the mind of a man averse from such ideas, when the news came of the wreck on Flotta and the death of George.

George's vouchers and accounts had perished with himself; and it appeared he was in debt to the Commissioners. But my grandfather wrote to Orkney twice, collected evidence of his disbursements, and proved him to be seventy pounds ahead. With this sum, he applied to George's brothers, and had it apportioned between their mother and themselves. He approached the Board and got an annuity of £5 bestowed on the widow Peebles; and we find him writing her a long letter of explanation and advice, and pressing on her the duty of making a will. That he should thus act executor was no singular instance. But besides this we are able to assist at some of the stages of a rather touching experiment: no less than an attempt to secure Charles Peebles heir to George's favour. He is despatched, under the character of "a fine young man"; recommended to gentlemen for "ad-

vice, as he's a stranger in your place, and indeed to this kind of charge, this being his first outset as Foreman"; and for a long while after, the letter-book, in the midst of that thrilling first year of the Bell Rock, is encumbered with pages of instruction and encouragement. The nature of a bill, and the precautions that are to be observed about discounting it, are expounded at length and with clearness. "You are not, I hope, neglecting, Charles, to work the harbour at spring-tides; and see that you pay the greatest attention to get the well so as to supply the keeper with water, for he is a very helpless fellow, and so unfond of hard work that I fear he could do ill to keep himself in water by going to the other side for it."—"With regard to spirits, Charles, I see very little occasion for it." These abrupt apostrophes sound to me like the voice of an awakened conscience; but they would seem to have reverberated in vain in the ears of Charles. There was trouble in Pladda, his scene of operations; his men ran away from him, there was at least a talk of calling in the Sheriff. "I fear," writes my grandfather, "you have been too indulgent, and I am sorry to add that men do not answer to be too well treated, a circumstance which I have experienced, and which you will learn as you go on in business." I wonder, was not Charles Peebles himself a case in point? Either death, at least, or disappointment and discharge, must have ended his service in the Northern Lights; and in later correspondence I look in vain for any mention of his name—Charles, I mean, not Peebles: for as late as 1839 my grandfather is patiently writing to another of the family: "I am sorry you took the trouble of applying to me

about your son, as it lies quite out of my way to forward his views in the line of his profession as a Draper."

## III

A professional life of Robert Stevenson has been already given to the world by his son David, and to that I would refer those interested in such matters. But my own design, which is to represent the man, would be very ill carried out if I suffered myself or my reader to forget that he was, first of all and last of all, an engineer. His chief claim to the style of a mechanical inventor is on account of the Jib or Balance Crane of the Bell Rock, which are beautiful contrivances. But the great merit of this engineer was not in the field of engines. He was above all things a projector of works in the face of nature, and a modifier of nature itself. A road to be made, a tower to be built, a harbour to be constructed, a river to be trained and guided in its channel — these were the problems with which his mind was continually occupied; and for these and similar ends he travelled the world for more than half a century, like an artist, note-book in hand.

He once stood and looked on at the emptying of a certain oil-tube; he did so watch in hand, and accurately timed the operation; and in so doing offered the perfect type of his profession. The fact acquired might never be of use: it was acquired: another link in the world's huge chain of processes was brought down to figures and placed at the service of the engineer. "The very term mensuration sounds *engineer-*

*like,*" I find him writing; and in truth what the engineer most properly deals with is that which can be measured, weighed, and numbered. The time of any operation in hours and minutes, its cost in pounds, shillings, and pence, the strain upon a given point in foot-pounds — these are his conquests, with which he must continually furnish his mind, and which, after he has acquired them, he must continually apply and exercise. They must be not only entries in note-books, to be hurriedly consulted; in the actor's phrase, he must be *stale* in them; in a word of my grandfather's, they must be "fixed in the mind like the ten fingers and ten toes."

These are the certainties of the engineer; so far he finds a solid footing and clear views. But the province of formulas and constants is restricted. Even the mechanical engineer comes at last to an end of his figures, and must stand up, a practical man, face to face with the discrepancies of nature and the hiatuses of theory. After the machine is finished, and the steam turned on, the next is to drive it; and experience and an exquisite sympathy must teach him where a weight should be applied or a nut loosened. With the civil engineer, more properly so called (if anything can be proper with this awkward coinage), the obligation starts with the beginning. He is always the practical man. The rains, the winds and the waves, the complexity and the fitfulness of nature, are always before him. He has to deal with the unpredictable, with those forces (in Smeaton's phrase) that "are subject to no calculation"; and still he must predict, still calculate them, at his peril. His work is not yet in being, and he must foresee its in-

fluence: how it shall deflect the tide, exaggerate the waves, dam back the rain-water, or attract the thunderbolt. He visits a piece of sea-board: and from the inclination and soil of the beach, from the weeds and shell-fish, from the configuration of the coast and the depth of soundings outside, he must induce what magnitude of waves is to be looked for. He visits a river, its summer water babbling on shallows; and he must not only read, in a thousand indications, the measure of winter freshets, but be able to predict the violence of occasional great floods. Nay, and more: he must not only consider that which is, but that which may be. Thus I find my grandfather writing, in a report on the North Esk Bridge: "A less waterway might have sufficed, but *the valleys may come to be meliorated by drainage.*" One field drained after another through all that confluence of vales, and we come to a time when they shall precipitate, by so much a more copious and transient flood, as the gush of the flowing drain-pipe is superior to the leakage of a peat.

It is plain there is here but a restricted use for formulas. In this sort of practice, the engineer has need of some transcendental sense. Smeaton, the pioneer, bade him obey his "feelings"; my father, that "power of estimating obscure forces which supplies a coefficient of its own to every rule." The rules must be everywhere indeed; but they must everywhere be modified by this transcendental coefficient, everywhere bent to the impression of the trained eye and the *feelings* of the engineer. A sentiment of physical laws and of the scale of nature, which shall have been strong in the beginning and progressively fortified by observation,

must be his guide in the last recourse. I had the most opportunity to observe my father. He would pass hours on the beach, brooding over the waves, counting them, noting their least deflection, noting when they broke. On Tweedside, or by Lyne or Manor, we have spent together whole afternoons; to me, at the time, extremely wearisome; to him, as I am now sorry to think, bitterly mortifying. The river was to me a pretty and various spectacle; I could not see — I could not be made to see — it otherwise. To my father it was a chequer-board of lively forces, which he traced from pool to shallow with minute appreciation and enduring interest. "That bank was being undercut," he might say; "why? Suppose you were to put a groin out here, would not the *filum fluminis* be cast abruptly off across the channel? and where would it impinge upon the other shore? and what would be the result? Or suppose you were to blast that boulder, what would happen? Follow it — use the eyes God has given you — can you not see that a great deal of land would be reclaimed upon this side?" It was to me like school in holidays; but to him, until I had worn him out with my invincible triviality, a delight. Thus he pored over the engineer's voluminous handy-book of nature; thus must, too, have pored my grandfather and uncles.

But it is of the essence of this knowledge, or this knack of mind, to be largely incommunicable. "It cannot be imparted to another," says my father. The verbal casting-net is thrown in vain over these evanescent, inferential relations. Hence the insignificance of much engineering literature. So far as the science can be reduced to formulas or diagrams, the book is to the

point; so far as the art depends on intimate study of the ways of nature, the author's words will too often be found vapid. This fact — that engineering looks one way, and literature another — was what my grandfather overlooked. All his life long, his pen was in his hand, piling up a treasury of knowledge, preparing himself against all possible contingencies. Scarce anything fell under his notice but he perceived in it some relation to his work, and chronicled it in the pages of his journal in his always lucid, but sometimes inexact and wordy, style. The Traveling Diary (so he called it) was kept in fascicles of ruled paper, which were at last bound up, rudely indexed, and put by for future reference. Such volumes as have reached me contain a surprising medley: the whole details of his employment in the Northern Lights and his general practice; the whole biography of an enthusiastic engineer. Much of it is useful and curious; much merely otiose; and much can only be described as an attempt to impart that which cannot be imparted in words. Of such are his repeated and heroic descriptions of reefs; monuments of misdirected literary energy, which leave upon the mind of the reader no effect but that of a multiplicity of words and the suggested vignette of a lusty old gentleman scrambling among tangle. It is to be remembered that he came to engineering while yet it was in the egg and without a library, and that he saw the bounds of that profession widen daily. He saw iron ships, steamers, and the locomotive engine, introduced. He lived to travel from Glasgow to Edinburgh in the inside of a forenoon, and to remember that he himself had "often been twelve hours upon the journey, and his grandfather (Lillie) two

days"! The profession was still but in its second generation, and had already broken down the barriers of time and space. Who should set a limit to its future encroachments? And hence, with a kind of sanguine pedantry, he pursued his design of "keeping up with the day" and posting himself and his family on every mortal subject. Of this unpractical idealism we shall meet with many instances; there was not a trade, and scarce an accomplishment, but he thought it should form part of the outfit of an engineer; and not content with keeping an encyclopædic diary himself, he would fain have set all his sons to work continuing and extending it. They were more happily inspired. My father's engineering pocket-book was not a bulky volume; with its store of pregnant notes and vital formulas, it served him through life, and was not yet filled when he came to die. As for Robert Stevenson and the Traveling Diary, I should be ungrateful to complain, for it has supplied me with many lively traits for this and subsequent chapters; but I must still remember much of the period of my study there as a sojourn in the Valley of the Shadow.

The duty of the engineer is twofold — to design the work, and to see the work done. We have seen already something of the vociferous thoroughness of the man, upon the cleaning of lamps and the polishing of reflectors. In building, in road-making, in the construction of bridges, in every detail and byway of his employments, he pursued the same ideal. Perfection (with a capital P and violently under-scored) was his design. A crack for a penknife, the waste of "six-and-thirty shillings," "the loss of a day or a tide," in each

of these he saw and was revolted by the finger of the sloven; and to spirits intense as his, and immersed in vital undertakings, the slovenly is the dishonest, and wasted time is instantly translated into lives endangered. On this consistent idealism there is but one thing that now and then trenches with a touch of incongruity, and that is his love of the picturesque. As when he laid out a road on Hogarth's line of beauty; bade a foreman be careful, in quarrying, not "to disfigure the island"; or regretted in a report that "the great stone, called the *Devil in the Hole,* was blasted or broken down to make road-metal, and for other purposes of the work."

# CHAPTER III

## THE BUILDING OF THE BELL ROCK

OFF the mouths of the Tay and the Forth, thirteen miles from Fifeness, eleven from Arbroath, and fourteen from the Red Head of Angus, lies the Inchcape or Bell Rock. It extends to a length of about fourteen hundred feet, but the part of it discovered at low water to not more than four hundred and twenty-seven. At a little more than half-flood in fine weather the seamless ocean joins over the reef, and at high-water springs it is buried sixteen feet. As the tide goes down, the higher reaches of the rock are seen to be clothed by *Conferva rupestris* as by a sward of grass; upon the more exposed edges, where the currents are most swift and the breach of the sea heaviest, Baderlock or Henware flourishes; and the great Tangle grows at the depth of several fathoms with luxuriance. Before man arrived, and introduced into the silence of the sea the smoke and clangour of a blacksmith's shop, it was a favourite resting-place of seals. The crab and lobster haunt in the crevices; and limpets, mussels, and the white buckie abound.

According to tradition, a bell had been once hung upon this rock by an abbot of Arbroath,[1] "and being

[1] This is, of course, the tradition commemorated by Southey in his ballad of "The Inchcape Bell." Whether true or not, it points to the

taken down by a sea-pirate, a year thereafter he perished upon the same rock, with ship and goods, in the righteous judgment of God." From the days of the abbot and the sea-pirate no man had set foot upon the Inchcape, save fishers from the neighbouring coast, or perhaps — for a moment, before the surges swallowed them — the unfortunate victims of shipwreck. The fishers approached the rock with an extreme timidity; but their harvest appears to have been great, and the adventure no more perilous than lucrative. In 1800, on the occasion of my grandfather's first landing, and during the two or three hours which the ebb-tide and the smooth water allowed them to pass upon its shelves, his crew collected upwards of two hundredweight of old metal: pieces of a kedge anchor and a cabin stove, crowbars, a hinge and lock of a door, a ship's marking-iron, a piece of a ship's caboose, a soldier's bayonet, a cannon ball, several pieces of money, a shoe-buckle, and the like. Such were the spoils of the Bell Rock. But the number of vessels actually lost upon the reef was as nothing to those that were cast away in fruitless efforts to avoid it. Placed right in the fairway of two navigations, and one of these the entrance to the only harbour of refuge between the Downs and the Moray Firth, it breathed abroad along the whole coast an atmosphere of terror and perplexity; and no ship

fact that from the infancy of Scottish navigation the seafaring mind had been fully alive to the perils of this reef. Repeated attempts had been made to mark the place with beacons, but all efforts were unavailing (one such beacon having been carried away within eight days of its erection) until Robert Stevenson conceived and carried out the idea of the stone tower.

sailed that part of the North Sea at night, but what the ears of those on board would be strained to catch the roaring of the seas on the Bell Rock.

From 1794 onward, the mind of my grandfather had been exercised with the idea of a light upon this formidable danger. To build a tower on a sea rock, eleven miles from shore, and barely uncovered at low water of neaps, appeared a fascinating enterprise. It was something yet unattempted, unessayed; and even now, after it has been lighted for more than eighty years, it is still an exploit that has never been repeated.[1] My grandfather was, besides, but a young man, of an experience comparatively restricted, and a reputation confined to Scotland; and when he prepared his first models, and exhibited them in Merchants' Hall, he can hardly be acquitted of audacity. John Clerk of Eldin stood his friend from the beginning, kept the key of the model room, to which he carried "eminent strangers," and found words of counsel and encouragement beyond price. "Mr. Clerk had been personally known to Smeaton, and used occasionally to speak of him to me,"

[1] The particular event which concentrated Mr. Stevenson's attention on the problem of the Bell Rock was the memorable gale of December 1799, when, among many other vessels, H.M.S. *York,* a seventy-four gun ship, went down with all hands on board. Shortly after this disaster, Mr. Stevenson made a careful survey, and prepared his models for a stone tower, the idea of which was at first received with pretty general scepticism. Smeaton's Eddystone tower could not be cited as affording a parallel, for there the rock is not submerged even at high-water, while the problem of the Bell Rock was to build a tower of masonry on a sunken reef far distant from land, covered at every tide to a depth of twelve feet or more, and having thirty-two fathoms' depth of water within a mile of its eastern edge.

says my grandfather; and again: "I felt regret that I had not the opportunity of a greater range of practice to fit me for such an undertaking; but I was fortified by an expression of my friend Mr. Clerk in one of our conversations. 'This work,' said he, 'is unique, and can be little forwarded by experience of ordinary masonic operations. In this case Smeaton's "Narrative" must be the text-book, and energy and perseverance the pratique.'"

A Bill for the work was introduced into Parliament and lost in the Lords in 1802–3. John Rennie was afterwards, at my grandfather's suggestion, called in council, with the style of chief engineer. The precise meaning attached to these words by any of the parties appears irrecoverable. Chief engineer should have full authority, full responsibility, and a proper share of the emoluments; and there were none of these for Rennie. I find in an appendix a paper which resumes the controversy on this subject; and it will be enough to say here that Rennie did not design the Bell Rock, that he did not execute it, and that he was not paid for it.[1]

[1] The grounds for the rejection of the Bill by the House of Lords in 1802–3 had been that the extent of coast over which dues were proposed to be levied would be too great. Before going to Parliament again, the Board of Northern Lights, desiring to obtain support and corroboration for Mr. Stevenson's views, consulted first Telford, who was unable to give the matter his attention, and then (on Stevenson's suggestion) Rennie, who concurred in affirming the practicability of a stone tower, and supported the Bill when it came again before Parliament in 1806. Rennie was afterwards appointed by the Commissioners as advising engineer, whom Stevenson might consult in cases of emergency. It seems certain that the title of chief engineer had in this instance no more meaning than the above. Rennie, in point of fact,

From so much of the correspondence as has come down to me, the acquaintance of this man, eleven years his senior, and already famous, appears to have been both useful and agreeable to Robert Stevenson. It is amusing to find my grandfather seeking high and low for a brace of pistols which his colleague had lost by the way between Aberdeen and Edinburgh; and writing to Messrs. Dollond, "I have not thought it necessary to trouble Mr. Rennie with this order, but *I beg you will see to get two minutes of him as he passes your door*"—a proposal calculated rather from the latitude of Edinburgh than from London, even in 1807. It is pretty, too, to observe with what affectionate regard Smeaton was held in mind by his immediate successors. "Poor old fellow," writes Rennie to Stevenson, "I hope he will now and then take a peep at us, and inspire you with fortitude and courage to brave all difficulties and dangers to accomplish a work which will, if successful, immortalize you in the annals of fame." The style might be bettered, but the sentiment is charming.

proposed certain modifications in Stevenson's plans, which the latter did not accept; nevertheless Rennie continued to take a kindly interest in the work, and the two engineers remained in friendly correspondence during its progress. The official view taken by the Board as to the quarter in which lay both the merit and the responsibility of the work may be gathered from a minute of the Commissioners at their first meeting held after Stevenson died; in which they record their regret "at the death of this zealous, faithful, and able officer, *to whom is due the honour of conceiving and executing the Bell Rock Lighthouse.*" The matter is briefly summed up in the *Life* of Robert Stevenson by his son David Stevenson (A. & C. Black, 1878), and fully discussed, on the basis of official facts and figures, by the same writer in a letter to the *Civil Engineers' and Architects' Journal*, 1862.

Smeaton was, indeed, the patron saint of the Bell Rock. Undeterred by the sinister fate of Winstanley, he had tackled and solved the problem of the Eddystone; but his solution had not been in all respects perfect. It remained for my grandfather to outdo him in daring, by applying to a tidal rock those principles which had been already justified by the success of the Eddystone, and to perfect the model by more than one exemplary departure. Smeaton had adopted in his floors the principle of the arch; each therefore exercised an outward thrust upon the walls, which must he met and combated by embedded chains. My grandfather's flooring-stones, on the other hand, were flat, made part of the outer wall, and were keyed and dovetailed into a central stone, so as to bind the work together and be positive elements of strength. In 1703 Winstanley still thought it possible to erect his strange pagoda, with its open gallery, its florid scrolls and candlesticks: like a rich man's folly for an ornamental water in a park. Smeaton followed; then Stevenson in his turn corrected such flaws as were left in Smeaton's design; and with his improvements, it is not too much to say the model was made perfect. Smeaton and Stevenson had between them evolved and finished the sea-tower. No subsequent builder has departed in anything essential from the principles of their design. It remains, and it seems to us as though it must remain for ever, an ideal attained. Every stone in the building, it may interest the reader to know, my grandfather had himself cut out in the model; and the manner in which the courses were fitted, joggled, trenailed, wedged, and the bond broken, is intricate as a puzzle and beautiful by ingenuity.

In 1806 a second Bill passed both Houses, and the preliminary works were at once begun. The same year the Navy had taken a great harvest of prizes in the North Sea, one of which, a Prussian fishing dogger, flat-bottomed and rounded at the stem and stern, was purchased to be a floating lightship, and re-named the *Pharos.* By July 1807 she was overhauled, rigged for her new purpose, and turned into the lee of the Isle of May. "It was proposed that the whole party should meet in her and pass the night; but she rolled from side to side in so extraordinary a manner that even the most sea-hardy fled. It was humorously observed of this vessel that she was in danger of making a round turn and appearing with her keel uppermost; and that she would even turn a halfpenny if laid upon deck." By two o'clock on the morning of the 15th July this purgatorial vessel was moored by the Bell Rock.

A sloop of forty tons had been in the meantime built at Leith, and named the *Smeaton;* by the 7th of August my grandfather set sail in her—

"carrying with him Mr. Peter Logan, foreman builder, and five artificers selected from their having been somewhat accustomed to the sea, the writer being aware of the distressing trial which the floating light would necessarily inflict upon landsmen from her rolling motion. Here he remained till the 10th, and, as the weather was favourable, a landing was effected daily, when the workmen were employed in cutting the large seaweed from the sites of the lighthouse and beacon, which were respectively traced with pickaxes upon the rock. In the meantime the crew of the *Smeaton* was employed in laying down the several sets of moorings within about half a mile of the rock for the convenience of vessels. The artificers, having, fortunately, experienced moderate weather, returned to the workyard of Arbroath with a good report of their treatment afloat; when their comrades ashore began to

feel some anxiety to see a place of which they had heard so much, and to change the constant operations with the iron and mallet in the process of hewing for an occasional tide's work on the rock, which they figured to themselves as a state of comparative ease and comfort."

I am now for many pages to let my grandfather speak for himself, and tell in his own words the story of his capital achievement. The tall quarto of 533 pages from which the following narrative has been dug out is practically unknown to the general reader, yet good judges have perceived its merit, and it has been named (with flattering wit) "The Romance of Stone and Lime" and "The Robinson Crusoe of Civil Engineering." The tower was but four years in the building; it took Robert Stevenson, in the midst of his many avocations, no less than fourteen to prepare the *Account*. The title-page is a solid piece of literature of upwards of a hundred words; the table of contents runs to thirteen pages; and the dedication (to that revered monarch, George IV.) must have cost him no little study and correspondence. Walter Scott was called in council, and offered one miscorrection which still blots the page. In spite of all this pondering and filing, there remain pages not easy to construe, and inconsistencies not easy to explain away. I have sought to make these disappear, and to lighten a little the baggage with which my grandfather marches; here and there I have rejointed and rearranged a sentence, always with his own words, and all with a reverent and faithful hand; and I offer here to the reader the true monument of Robert Stevenson with a little of the moss removed from the inscription, and the Portrait of the artist with some superfluous canvas cut away.

# THE BUILDING OF THE BELL ROCK

## I

## OPERATIONS OF 1807

Everything being arranged for sailing to the rock on Saturday the 15th, the vessel might have proceeded on the Sunday; but understanding that this would not be so agreeable to the artificers it was deferred until Monday. Here we cannot help observing that the men allotted for the operations at the rock seemed to enter upon the undertaking with a degree of consideration which fully marked their opinion as to the hazardous nature of the undertaking on which they were about to enter. They went in a body to church on Sunday, and whether it was in the ordinary course, or designed for the occasion, the writer is not certain, but the service was, in many respects, suitable to their circumstances. 1807 Sunday, 16th Aug.

The tide happening to fall late in the evening of Monday the 17th, the party, counting twenty-four in number, embarked on board of the *Smeaton* about ten o'clock p.m., and sailed from Arbroath with a gentle breeze at west. Our ship's colours having been flying all day in compliment to the commencement of the work, the other vessels in the harbour also saluted, which made a very gay appearance. A number of the friends and acquaintances of those on board having been thus collected, the piers, though at a late hour, were perfectly crowded, and just as the *Smeaton* cleared the harbour, all on board united in giving three hearty cheers, which were returned by those on shore in such good earnest, that, in the still of the evening, the sound must have been heard in all parts of the town, re-echoing from the walls and lofty turrets of the venerable Abbey of Aberbrothwick. The writer felt much satisfaction at the manner of this parting scene, though he must own that the present rejoicing was, on his part, mingled with occasional reflections upon the responsibility of his situation, which extended to the safety of all who should be engaged in this perilous work. With such sensations he retired to his cabin; but as the artificers were rather inclined to move about the deck than to remain in their confined berths below, his repose was transient, and the vessel being small every motion was necessarily heard. Some who were musically inclined occasionally sung; but he listened with peculiar

1807 Monday, 17th Aug. pleasure to the sailor at the helm, who hummed over Dibdin's characteristic air :—

"They say there 's a Providence sits up aloft,
To keep watch for the life of poor Jack."

Tuesday, 18th Aug. The weather had been very gentle all night, and, about four in the morning of the 18th, the *Smeaton* anchored. Agreeably to an arranged plan of operations, all hands were called at five o'clock a.m., just as the highest part of the Bell Rock began to show its sable head among the light breakers, which occasionally whitened with the foaming sea. The two boats belonging to the floating light attended the *Smeaton*, to carry the artificers to the rock, as her boat could only accommodate about six or eight sitters. Every one was more eager than his neighbour to leap into the boats, and it required a good deal of management on the part of the coxswains to get men unaccustomed to a boat to take their places for rowing and at the same time trimming her properly. The landing-master and foreman went into one boat, while the writer took charge of another, and steered it to and from the rock. This became the more necessary in the early stages of the work, as places could not be spared for more than two, or at most three, seamen to each boat, who were always stationed, one at the bow, to use the boat-hook in fending or pushing off, and the other at the aftermost oar, to give the proper time in rowing, while the middle oars were double-banked, and rowed by the artificers.

As the weather was extremely fine, with light airs of wind from the east, we landed without difficulty upon the central part of the rock at half-past five, but the water had not yet sufficiently left it for commencing the work. This interval, however, did not pass unoccupied. The first and last of all the principal operations at the Bell Rock were accompanied by three hearty cheers from all hands, and, on occasions like the present, the steward of the ship attended, when each man was regaled with a glass of rum. As the water left the rock about six, some began to bore the holes for the great bats or holdfasts, for fixing the beams of the Beacon-house, while the smith was fully attended in laying out the site of his forge, upon a somewhat sheltered spot of the rock, which also recommended itself from the vicinity of a pool of water for tempering his irons. These preliminary steps occupied about

an hour, and as nothing further could be done during this tide towards fixing the forge, the workmen gratified their curiosity by roaming about the rock, which they investigated with great eagerness till the tide overflowed it. Those who had been sick picked dulse (*Fucus palmatus*), which they ate with much seeming appetite; others were more intent upon collecting limpets for bait, to enjoy the amusement of fishing when they returned on board of the vessel. Indeed, none came away empty-handed, as everything found upon the Bell Rock was considered valuable, being connected with some interesting association. Several coins, and numerous bits of shipwrecked iron, were picked up, of almost every description; and, in particular, a marking-iron lettered JAMES — a circumstance of which it was thought proper to give notice to the public, as it might lead to the knowledge of some unfortunate shipwreck, perhaps unheard of till this simple occurrence led to the discovery. When the rock began to be overflowed, the landing-master arranged the crews of the respective boats, appointing twelve persons to each. According to a rule which the writer had laid down to himself, he was always the last person who left the rock. 1807

In a short time the Bell Rock was laid completely under water, and the weather being extremely fine, the sea was so smooth that its place could not be pointed out from the appearance of the surface — a circumstance which sufficiently demonstrates the dangerous nature of this rock, even during the day, and in the smoothest and calmest state of the sea. During the interval between the morning and the evening tides, the artificers were variously employed in fishing and reading; others were busy in drying and adjusting their wet clothes, and one or two amused their companions with the violin and German flute.

About seven in the evening the signal bell for landing on the rock was again rung, when every man was at his quarters. In this service it was thought more appropriate to use the bell than to *pipe* to quarters, as the use of this instrument is less known to the mechanic than the sound of the bell. The landing, as in the morning, was at the eastern harbour. During this tide the seaweed was pretty well cleared from the site of the operations, and also from the tracks leading to the different landing-places; for walking upon the rugged surface of the Bell Rock, when covered with seaweed, was found to be extremely difficult, and even dangerous. Every hand that could possibly be occupied was now employed in assisting the smith to fit up the apparatus

1807 for his forge. At 9 p.m. the boats returned to the tender, after other two hours' work, in the same order as formerly—perhaps as much gratified with the success that attended the work of this day as with any other in the whole course of the operations. Although it could not be said that the fatigues of this day had been great, yet all on board retired early to rest. The sea being calm, and no movement on deck, it was pretty generally remarked in the morning that the bell awakened the greater number on board from their first sleep; and though this observation was not altogether applicable to the writer himself, yet he was not a little pleased to find that thirty people could all at once become so reconciled to a night's quarters within a few hundred paces of the Bell Rock.

Wednesday, 19th Aug. Being extremely anxious at this time to get forward with fixing the smith's forge, on which the progress of the work at present depended, the writer requested that he might be called at daybreak to learn the landing-master's opinion of the weather from the appearance of the rising sun, a criterion by which experienced seamen can generally judge pretty accurately of the state of the weather for the following day. About five o'clock, on coming upon deck, the sun's upper limb or disc had just begun to appear as if rising from the ocean, and in less than a minute he was seen in the fullest splendour; but after a short interval he was enveloped in a soft cloudy sky, which was considered emblematical of fine weather. His rays had not yet sufficiently dispelled the clouds which hid the land from view, and the Bell Rock being still overflowed, the whole was one expanse of water. This scene in itself was highly gratifying; and, when the morning bell was tolled, we were gratified with the happy forebodings of good weather and the expectation of having both a morning and an evening tide's work on the rock.

The boat which the writer steered happened to be the last which approached the rock at this tide; and, in standing up in the stern, while at some distance, to see how the leading boat entered the creek, he was astonished to observe something in the form of a human figure, in a reclining posture, upon one of the ledges of the rock. He immediately steered the boat through a narrow entrance to the eastern harbour, with a thousand unpleasant sensations in his mind. He thought a vessel or boat must have been wrecked upon the rock during the night; and it seemed probable that the rock might be strewed with dead bodies, a spectacle which could not fail to deter the artificers from re-

turning so freely to their work. In the midst of these reveries the boat took the ground at an improper landing-place, but, without waiting to push her off, he leapt upon the rock, and making his way hastily to the spot which had privately given him alarm, he had the satisfaction to ascertain that he had only been deceived by the peculiar situation and aspect of the smith's anvil and block, which very completely represented the appearance of a lifeless body upon the rock. The writer carefully suppressed his feelings, the simple mention of which might have had a bad effect upon the artificers, and his haste passed for an anxiety to examine the apparatus of the smith's forge, left in an unfinished state at evening tide. 1807

In the course of this morning's work two or three apparently distant peals of thunder were heard, and the atmosphere suddenly became thick and foggy. But as the *Smeaton*, our present tender, was moored at no great distance from the rock, the crew on board continued blowing with a horn, and occasionally fired a musket, so that the boats got to the ship without difficulty.

The wind this morning inclined from the north-east, and the sky had a heavy and cloudy appearance, but the sea was smooth, though there was an undulating motion on the surface, which indicated easterly winds, and occasioned a slight surf upon the rock. But the boats found no difficulty in landing at the western creek at half-past seven, and, after a good tide's work, left it again about a quarter from eleven. In the evening the artificers landed at half-past seven, and continued till half-past eight, having completed the fixing of the smith's forge, his vice, and a wooden board or bench, which were also batted to a ledge of the rock, to the great joy of all, under a salute of three hearty cheers. From an oversight on the part of the smith, who had neglected to bring his tinder-box and matches from the vessel, the work was prevented from being continued for at least an hour longer. Thursday, 20th Aug.

The smith's shop was, of course, in *open space:* the large bellows were carried to and from the rock every tide, for the serviceable condition of which, together with the tinder-box, fuel, and embers of the former fire, the smith was held responsible. Those who have been placed in situations to feel the inconveniency and want of this useful artisan, will be able to appreciate his value in a case like the present. It often happened, to our annoyance and disappointment, in the early state of the work, when the smith was in the middle of a *favourite*

1807 *beat* in making some useful article, or in sharpening the tools, after the flood-tide had obliged the pickmen to strike work, a sea would come rolling over the rocks, dash out the fire, and endanger his indispensable implement, the bellows. If the sea was smooth, while the smith often stood at work knee-deep in water, the tide rose by imperceptible degrees, first cooling the exterior of the fireplace, or hearth, and then quietly blackening and extinguishing the fire from below. The writer has frequently been amused at the perplexing anxiety of the blacksmith when coaxing his fire and endeavouring to avert the effects of the rising tide.

Friday, 21st Aug. Everything connected with the forge being now completed, the artificers found no want of sharp tools, and the work went forward with great alacrity and spirit. It was also alleged that the rock had a more habitable appearance from the volumes of smoke which ascended from the smith's shop and the busy noise of his anvil, the operations of the masons, the movements of the boats, and shipping at a distance — all contributed to give life and activity to the scene. This noise and traffic had, however, the effect of almost completely banishing the herd of seals which had hitherto frequented the rock as a resting-place during the period of low water. The rock seemed to be peculiarly adapted to their habits, for, excepting two or three days at neap-tides, a part of it always dries at low water — at least, during the summer season — and as there was good fishing-ground in the neighbourhood, without a human being to disturb or molest them, it had become a very favourite residence of these amphibious animals, the writer having occasionally counted from fifty to sixty playing about the rock at a time. But when they came to be disturbed every tide, and their seclusion was broken in upon by the kindling of great fires, together with the beating of hammers and picks during low water, after hovering about for a time, they changed their place, and seldom more than one or two were to be seen about the rock upon the more detached outlayers which dry partially, whence they seemed to look with that sort of curiosity which is observable in these animals when following a boat.

Saturday, 22nd Aug. Hitherto the artificers had remained on board of the *Smeaton,* which was made fast to one of the mooring buoys at a distance only of about a quarter of a mile from the rock, and, of course, a very great conveniency to the work. Being so near, the seamen could never be mistaken as to the progress of the tide, or state of the sea upon the rock,

nor could the boats be much at a loss to pull on board of the vessel during fog, or even in very rough weather; as she could be cast loose from her moorings at pleasure, and brought to the lee side of the rock. But the *Smeaton* being only about forty register tons, her accommodations were extremely limited. It may, therefore, be easily imagined that an addition of twenty-four persons to her own crew must have rendered the situation of those on board rather uncomfortable. The only place for the men's hammocks on board being in the hold, they were unavoidably much crowded; and if the weather had required the hatches to be fastened down, so great a number of men could not possibly have been accommodated. To add to this evil, the *co-boose* or cooking-place being upon deck, it would not have been possible to have cooked for so large a company in the event of bad weather. 1807

The stock of water was now getting short, and some necessaries being also wanted for the floating light, the *Smeaton* was despatched for Arbroath; and the writer, with the artificers, at the same time shifted their quarters from her to the floating light.

Although the rock barely made its appearance at this period of the tides till eight o'clock, yet, having now a full mile to row from the floating light to the rock, instead of about a quarter of a mile from the moorings of the *Smeaton*, it was necessary to be earlier astir, and to form different arrangements; breakfast was accordingly served up at seven o'clock this morning. From the excessive motion of the floating light, the writer had looked forward rather with anxiety to the removal of the workmen to this ship. Some among them, who had been congratulating themselves upon having become sea-hardy while on board of the *Smeaton*, had a complete relapse on returning to the floating light. This was the case with the writer. From the spacious and convenient berthage of the floating light, the exchange to the artificers was, in this respect, much for the better. The boats were also commodious, measuring sixteen feet in length on the keel, so that, in fine weather, their complement of sitters was sixteen persons for each, with which, however, they were rather crowded, but she could not stow two boats of larger dimensions. When there was what is called a breeze of wind, and a swell in the sea, the proper number for each boat could not, with propriety, be rated at more than twelve persons.

When the tide-bell rung the boats were hoisted out, and two active seamen were employed to keep them from receiving damage alongside.

1807 The floating light being very buoyant, was so quick in her motions that when those who were about to step from her gunwale into a boat, placed themselves upon a cleat or step on the ship's side, with the man or rail ropes in their hands, they had often to wait for some time till a favourable opportunity occurred for stepping into the boat. While in this situation, with the vessel rolling from side to side, watching the proper time for letting go the man-ropes, it required the greatest dexterity and presence of mind to leap into the boats. One who was rather awkward would often wait a considerable period in this position: at one time his side of the ship would be so depressed that he would touch the boat to which he belonged, while the next sea would elevate him so much that he would see his comrades in the boat on the opposite side of the ship, his friends in the one boat calling to him to "Jump," while those in the boat on the other side, as he came again and again into their view, would jocosely say "Are you there yet? You seem to enjoy a swing." In this situation it was common to see a person upon each side of the ship for a length of time, waiting to quit his hold.

On leaving the rock to-day a trial of seamanship was proposed amongst the rowers, for by this time the artificers had become tolerably expert in this exercise. By inadvertency some of the oars provided had been made of fir instead of ash, and although a considerable stock had been laid in, the workmen, being at first awkward in the art, were constantly breaking their oars; indeed it was no uncommon thing to see the broken blades of a pair of oars floating astern, in the course of a passage from the rock to the vessel. The men, upon the whole, had but little work to perform in the course of a day; for though they exerted themselves extremely hard while on the rock, yet, in the early state of the operations, this could not be continued for more than three or four hours at a time, and as their rations were large — consisting of one pound and a half of beef, one pound of ship biscuit, eight ounces oatmeal, two ounces barley, two ounces butter, three quarts of small beer, with vegetables and salt — they got into excellent spirits when free of sea-sickness. The rowing of the boats against each other became a favourite amusement, which was rather a fortunate circumstance, as it must have been attended with much inconvenience had it been found necessary to employ a sufficient number of sailors for this purpose. The writer, therefore, encouraged this spirit of emulation, and

the speed of their respective boats became a favourite topic. Premiums for boat-races were instituted, which were contended for with great eagerness, and the respective crews kept their stations in the boats with as much precision as they kept their beds on board of the ship. With these and other pastimes, when the weather was favourable, the time passed away among the inmates of the forecastle and waist of the ship. The writer looks back with interest upon the hours of solitude which he spent in this lonely ship with his small library. 1807

This being the first Saturday that the artificers were afloat, all hands were served with a glass of rum and water at night, to drink the sailors' favourite toast of "Wives and Sweethearts." It was customary, upon these occasions, for the seamen and artificers to collect in the galley, when the musical instruments were put in requisition: for, according to invariable practice, every man must play a tune, sing a song, or tell a story.

Having, on the previous evening, arranged matters with the landing-master as to the business of the day, the signal was rung for all hands at half-past seven this morning. In the early state of the spring-tides the artificers went to the rock before breakfast, but as the tides fell later in the day, it became necessary to take this meal before leaving the ship. At eight o'clock all hands were assembled on the quarter-deck for prayers, a solemnity which was gone through in as orderly a manner as circumstances would admit. When the weather permitted, the flags of the ship were hung up as an awning or screen, forming the quarter-deck into a distinct compartment; the pendant was also hoisted at the mainmast, and a large ensign flag was displayed over the stern; and lastly, the ship's companion, or top of the staircase, was covered with the *flag proper* of the Lighthouse Service, on which the Bible was laid. A particular toll of the bell called all hands to the quarter-deck, when the writer read a chapter of the Bible, and, the whole ship's company being uncovered, he also read the impressive prayer composed by the Reverend Dr. Brunton, one of the ministers of Edinburgh. Sunday, 23rd Aug.

Upon concluding this service, which was attended with becoming reverence and attention, all on board retired to their respective berths to breakfast, and, at half-past nine, the bell again rung for the artificers to take their stations in their respective boats. Some demur having been evinced on board about the propriety of working on Sunday,

1807 which had hitherto been touched upon as delicately as possible, all hands being called aft, the writer, from the quarter-deck, stated generally the nature of the service, expressing his hopes that every man would feel himself called upon to consider the erection of a lighthouse on the Bell Rock, in every point of view, as a work of necessity and mercy. He knew that scruples had existed with some, and these had, indeed, been fairly and candidly urged before leaving the shore; but it was expected that, after having seen the critical nature of the rock, and the necessity of the measure, every man would now be satisfied of the propriety of embracing all opportunities of landing on the rock when the state of the weather would permit. The writer further took them to witness that it did not proceed from want of respect for the appointments and established forms of religion that he had himself adopted the resolution of attending the Bell Rock works on the Sunday; but, as he hoped, from a conviction that it was his bounden duty, on the strictest principles of morality. At the same time it was intimated that, if any were of a different opinion, they should be perfectly at liberty to hold their sentiments without the imputation of contumacy or disobedience; the only difference would be in regard to the pay.

Upon stating this much, he stepped into his boat, requesting all who were so disposed to follow him. The sailors, from their habits, found no scruple on this subject, and all of the artificers, though a little tardy, also embarked, excepting four of the masons, who, from the beginning, mentioned that they would decline working on Sundays. It may here be noticed that throughout the whole of the operations it was observable that the men wrought, if possible, with more keenness upon the Sundays than at other times, from an impression that they were engaged in a work of imperious necessity, which required every possible exertion. On returning to the floating light, after finishing the tide's work, the boats were received by the part of the ship's crew left on board with the usual attention of handing ropes to the boats and helping the artificers on board; but the four masons who had absented themselves from the work did not appear upon deck.

The boats left the floating light at a quarter-past nine o'clock this morning, and the work began at three-quarters past nine; but as the neap-tides were approaching the working time at the rock become gradually shorter, and it was now with difficulty that two and a half

hours' work could be got. But so keenly had the workmen entered into the spirit of the Beacon-house operations, that they continued to bore the holes in the rock till some of them were knee-deep in water. 1807

The operations at this time were entirely directed to the erection of the beacon, in which every man felt an equal interest, as at this critical period the slightest casualty to any of the boats at the rock might have been fatal to himself individually, while it was perhaps peculiar to the writer more immediately to feel for the safety of the whole. Each log or upright beam of the beacon was to be fixed to the rock by two strong and massive bats or stanchions of iron. These bats, for the fixture of the principal and diagonal beams and bracing chains, required fifty-four holes, each measuring two inches in diameter, and eighteen inches in depth. There had already been so considerable a progress made in boring and excavating the holes that the writer's hopes of getting the beacon erected this year began to be more and more confirmed, although it was now advancing towards what was considered the latter end of the proper working season at the Bell Rock. The foreman joiner, Mr. Francis Watt, was accordingly appointed to attend at the rock to-day, when the necessary levels were taken for the step or seat of each particular beam of the beacon, that they might be cut to their respective lengths, to suit the inequalities of the rock; several of the stanchions were also tried into their places, and other necessary observations made, to prevent mistakes on the application of the apparatus, and to facilitate the operations when the beams came to be set up, which would require to be done in the course of a single tide. Monday, 24th Aug.

We had now experienced an almost unvaried tract of light airs of easterly wind, with clear weather in the fore-part of the day, and fog in the evenings. To-day, however, it sensibly changed; when the wind came to the south-west, and blew a fresh breeze. At nine a.m. the bell rung, and the boats were hoisted out, and though the artificers were now pretty well accustomed to tripping up and down the sides of the floating light, yet it required more seamanship this morning than usual. It therefore afforded some merriment to those who had got fairly seated in their respective boats to see the difficulties which attended their companions, and the hesitating manner in which they quitted hold of the man-ropes in leaving the ship. The passage to the rock was tedious, and the boats did not reach it till half-past ten. Tuesday, 25th Aug.

It being now the period of neap-tides, the water only partially left

1807 the rock and some of the men who were boring on the lower ledges of the site of the beacon stood knee-deep in water. The situation of the smith to-day was particularly disagreeable, but his services were at all times indispensable. As the tide did not leave the site of the forge, he stood in the water, and as there was some roughness on the surface it was with considerable difficulty that, with the assistance of the sailors, he was enabled to preserve alive his fire ; and, while his feet were immersed in water, his face was not only scorched, but continually exposed to volumes of smoke, accompanied with sparks from the fire, which were occasionally set up owing to the strength and direction of the wind.

Wednesday, 26th Aug. The wind had shifted this morning to N.N.W., with rain, and was blowing what sailors call a fresh breeze. To speak, perhaps, somewhat more intelligibly, to the general reader, the wind was such that a fishing-boat could just carry full sail. But as it was of importance, specially in the outset of the business, to keep up the spirit of enterprise for landing on all practical occasions, the writer, after consulting with the landing-master, ordered the bell to be rung for embarking, and at half-past eleven the boats reached the rock, and left it again at a quarter-past twelve, without, however, being able to do much work, as the smith could not be set to work from the smallness of the ebb and the strong breach of sea, which lashed with great force among the bars of the forge.

Just as we were about to leave the rock the wind shifted to the S.W., and, from a fresh gale, it became what seamen term a hard gale, or such as would have required the fisherman to take in two or three reefs in his sail. It is a curious fact that the respective tides of ebb and flood are apparent upon the shore about an hour and a half sooner than at the distance of three or four miles in the offing. But what seems chiefly interesting here is that the tides around this small sunken rock should follow exactly the same laws as on the extensive shores of the mainland. When the boats left the Bell Rock to-day it was overflowed by the flood-tide, but the floating light did not swing round to the flood-tide for more than an hour afterwards. Under this disadvantage the boats had to struggle with the ebb-tide and a hard gale of wind, so that it was with the greatest difficulty they reached the floating light. Had this gale happened in spring-tides when the current was strong we must have been driven to sea in a very helpless condition.

The boat which the writer steered was considerably behind the other, one of the masons having unluckily broken his oar. Our prospect of getting on board, of course, became doubtful, and our situation was rather perilous, as the boat shipped so much sea that it occupied two of the artificers to bale and clear her of water. When the oar gave way we were about half a mile from the ship, but, being fortunately to windward, we got into the wake of the floating light, at about 250 fathoms astern, just as the landing-master's boat reached the vessel. He immediately streamed or floated a life-buoy astern, with a line which was always in readiness, and by means of this useful implement the boat was towed alongside of the floating light, where, from her rolling motion, it required no small management to get safely on board, as the men were much worn out with their exertions in pulling from the rock. On the present occasion the crews of both boats were completely drenched with spray, and those who sat upon the bottom of the boats to bale them were sometimes pretty deep in the water before it could be cleared out. After getting on board, all hands were allowed an extra dram, and, having shifted and got a warm and comfortable dinner, the affair, it is believed, was little more thought of. 1807

The tides were now in that state which sailors term the dead of the neap, and it was not expected that any part of the rock would be seen above water to-day; at any rate, it was obvious, from the experience of yesterday, that no work could be done upon it, and therefore the artificers were not required to land. The wind was at west, with light breezes, and fine clear weather; and as it was an object with the writer to know the actual state of the Bell Rock at neap-tides, he got one of the boats manned, and, being accompanied by the landing-master, went to it at a quarter-past twelve. The parts of the rock that appeared above water being very trifling, were covered by every wave, so that no landing was made. Upon trying the depth of water with a boat-hook, particularly on the sites of the lighthouse and beacon, on the former, at low water, the depth was found to be three feet, and on the central parts of the latter it was ascertained to be two feet eight inches. Having made these remarks, the boat returned to the ship at two p.m., and the weather being good, the artificers were found amusing themselves with fishing. The *Smeaton* came from Arbroath this afternoon, and made fast to her moorings, having brought letters and newspapers, with parcels of clean linen, etc., for the workmen, who **Thursday, 27th Aug.**

1807 were also made happy by the arrival of three of their comrades from the workyard ashore. From these men they not only received all the news of the workyard, but seemed themselves to enjoy great pleasure in communicating whatever they considered to be interesting with regard to the rock. Some also got letters from their friends at a distance, the postage of which for the men afloat was always free, so that they corresponded the more readily.

The site of the building having already been carefully traced out with the pick-axe, the artificers this day commenced the excavation of the rock for the foundation or first course of the lighthouse. Four men only were employed at this work, while twelve continued at the site of the beacon-house, at which every possible opportunity was embraced, till this essential part of the operations should be completed.

**Wednesday, 2nd Sept.** The floating light's bell rung this morning at half-past four o'clock, as a signal for the boats to be got ready, and the landing took place at half-past five. In passing the *Smeaton* at her moorings near the rock, her boat followed with eight additional artificers who had come from Arbroath with her at last trip, but there being no room for them in the floating light's boats, they had continued on board. The weather did not look very promising in the morning, the wind blowing pretty fresh from W.S.W.: and had it not been that the writer calculated upon having a vessel so much at command, in all probability he would not have ventured to land. The *Smeaton* rode at what sailors call a *salvagee,* with a cross-head made fast to the floating buoy. This kind of attachment was found to be more convenient than the mode of passing the hawser through the ring of the buoy when the vessel was to be made fast. She had then only to be steered very close to the buoy, when the salvagee was laid hold of with a boat-hook, and the *bite* of the hawser thrown over the cross-head. But the salvagee, by this method, was always left at the buoy, and was, of course, more liable to chafe and wear than a hawser passed through the ring, which could be wattled with canvas, and shifted at pleasure. The salvagee and cross method is, however, much practised ; but the experience of this morning showed it to be very unsuitable for vessels riding in an exposed situation for any length of time.

Soon after the artificers landed they commenced work; but the wind coming to blow hard, the *Smeaton's* boat and crew, who had brought their complement of eight men to the rock, went off to examine her

riding ropes, and see that they were in proper order. The boat had 1807
no sooner reached the vessel than she went adrift, carrying the boat along with her. By the time that she was got round to make a tack towards the rock, she had drifted at least three miles to leeward, with the praamboat astern; and, having both the wind and a tide against her, the writer perceived, with no little anxiety, that she could not possibly return to the rock till long after its being overflowed; for, owing to the anomaly of the tides formerly noticed, the Bell Rock is completely under water when the ebb abates to the offing.

In this perilous predicament, indeed, he found himself placed between hope and despair — but certainly the latter was by much the most predominant feeling of his mind — situate upon a sunken rock in the middle of the ocean, which, in the progress of the flood-tide, was to be laid under water to the depth of at least twelve feet in a stormy sea. There were this morning thirty-two persons in all upon the rock, with only two boats, whose complement, even in good weather, did not exceed twenty-four sitters; but to row to the floating-light with so much wind, and in so heavy a sea, a complement of eight men for each boat was as much as could, with propriety, be attempted, so that, in this way, about one-half of our number was unprovided for. Under these circumstances, had the writer ventured to dispatch one of the boats in expectation of either working the *Smeaton* sooner up towards the rock, or in hopes of getting her boat brought to our assistance, this must have given an immediate alarm to the artificers, each of whom would have insisted upon taking to his own boat, and leaving the eight artificers belonging to the *Smeaton* to their chance. Of course a scuffle might have ensued, and it is hard to say, in the ardour of men contending for life, where it might have ended. It has even been hinted to the writer that a party of the *pickmen* were determined to keep exclusively to their own boat against all hazards.

The unfortunate circumstance of the *Smeaton* and her boat having drifted was, for a considerable time, only known to the writer and to the landing-master, who removed to the farther point of the rock, where he kept his eye steadily upon the progress of the vessel. While the artificers were at work, chiefly in sitting or kneeling postures, excavating the rock, or boring with the jumpers, and while their numerous hammers, with the sound of the smith's anvil, continued, the situation of things did not appear so awful. In this state of suspense, with

1807 almost certain destruction at hand, the water began to rise upon those who were at work on the lower parts of the sites of the beacon and lighthouse. From the run of sea upon the rock, the forge fire was also sooner extinguished this morning than usual, and the volumes of smoke having ceased, objects in every direction became visible from all parts of the rock. After having had about three hours' work, the men began, pretty generally, to make towards their respective boats for their jackets and stockings, when, to their astonishment, instead of three, they found only two boats, the third being adrift with the *Smeaton*. Not a word was uttered by any one, but all appeared to be silently calculating their numbers, and looking to each other with evident marks of perplexity depicted in their countenances. The landing-master, conceiving that blame might be attached to him, for allowing the boat to leave the rock, still kept at a distance. At this critical moment the author was standing upon an elevated part of Smith's Ledge, where he endeavored to mark the progress of the *Smeaton,* not a little surprised that her crew did not cut the praam adrift, which greatly retarded her way, and amazed that some effort was not making to bring at least the boat, and attempt our relief. The workmen looked steadfastly upon the writer, and turned occasionally towards the vessel, still far to leeward.[1] All this passed in the most perfect silence, and the melancholy solemnity of the group made an impression never to be effaced from his mind.

The writer had all along been considering of various schemes — providing the men could be kept under command — which might be put in practice for the general safety, in hopes that the *Smeaton* might be able to pick up the boats to leeward, when they were obliged to leave the rock. He was, accordingly, about to address the artificers on the perilous nature of their circumstances, and to propose that all hands should unstrip their upper clothing when the higher parts of the rock were laid under water; that the seamen should remove every unnecessary weight and encumbrance from the boats; that a specified number of men should go into each boat, and that the remainder should hang by the gunwales, while the boats were to be rowed gently towards the *Smeaton,* as the course to the *Pharos,* or floating light, lay rather to windward of the rock. But when he attempted to speak his mouth was so parched that his tongue refused utterance, and he now learned

[1] "Nothing was said, but I was *looked out of countenance,*" he says in a letter.

by experience that the saliva is as necessary as the tongue itself for speech. He turned to one of the pools on the rock and lapped a little water, which produced immediate relief. But what was his happiness, when on rising from this unpleasant beverage, some one called out, "A boat! a boat!" and, on looking around, at no great distance, a large boat was seen through the haze making towards the rock. This at once enlivened and rejoiced every heart. The timeous visitor proved to be James Spink, the Bell Rock pilot, who had come express from Arbroath with letters. Spink had for some time seen the *Smeaton*, and had even supposed, from the state of the weather, that all hands were on board of her till he approached more nearly and observed people upon the rock; but not supposing that the assistance of his boat was necessary to carry the artificers off the rock, he anchored on the lee-side and began to fish, waiting, as usual, till the letters were sent for, as the pilot-boat was too large and unwieldy for approaching the rock when there was any roughness or run of the sea at the entrance of the landing creeks. 1807

Upon this fortunate change of circumstances, sixteen of the artificers were sent, at two trips, in one of the boats, with instructions for Spink to proceed with them to the floating light. This being accomplished, the remaining sixteen followed in the two boats belonging to the service of the rock. Every one felt the most perfect happiness at leaving the Bell Rock this morning, though a very hard and even dangerous passage to the floating light still awaited us, as the wind by this time had increased to a pretty hard gale, accompanied with a considerable swell of sea. Every one was as completely drenched in water as if he had been dragged astern of the boats. The writer, in particular, being at the helm, found, on getting on board, that his face and ears were completely coated with a thin film of salt from the sea spray, which broke constantly over the bows of the boat. After much baling of water and severe work at the oars, the three boats reached the floating light, where some new difficulties occurred in getting on board in safety, owing partly to the exhausted state of the men, and partly to the violent rolling of the vessel.

As the tide flowed, it was expected that the *Smeaton* would have got to windward; but, seeing that all was safe, after tacking for several hours and making little progress, she bore away for Arbroath, with the praam-boat. As there was now too much wind for the pilot-boat to

1807 return to Arbroath, she was made fast astern of the floating light, and the crew remained on board till next day, when the weather moderated. There can be very little doubt that the appearance of James Spink with his boat on this critical occasion was the means of preventing the loss of lives at the rock this morning. When these circumstances, some years afterwards, came to the knowledge of the Board, a small pension was ordered to our faithful pilot, then in his seventieth year; and he still continues to wear the uniform clothes and badge of the Lighthouse service. Spink is a remarkably strong man, whose *tout ensemble* is highly characteristic of a North-country fisherman. He usually dresses in a *pé-jacket,* cut after a particular fashion, and wears a large, flat, blue bonnet. A striking likeness of Spink in his pilot-dress, with the badge or insignia on his left arm which is characteristic of the boatmen in the service of the Northern Lights, has been taken by Howe, and is in the writer's possession.

Thursday, 3rd Sept. The bell rung this morning at five o'clock, but the writer must acknowledge, from the circumstances of yesterday, that its sound was extremely unwelcome. This appears also to have been the feelings of the artificers, for when they came to be mustered, out of twenty-six, only eight, besides the foreman and seamen, appeared upon deck to accompany the writer to the rock. Such are the baneful effects of anything like misfortune or accident connected with a work of this description. The use of argument to persuade the men to embark in cases of this kind would have been out of place, as it is not only discomfort, or even the risk of the loss of a limb, but life itself that becomes the question. The boats, notwithstanding the thinness of our ranks, left the vessel at half-past five. The rough weather of yesterday having proved but a summer's gale, the wind came to-day in gentle breezes; yet, the atmosphere being cloudy, it had not a very favourable appearance. The boats reached the rock at six a. m., and the eight artificers who landed were employed in clearing out the bat-holes for the beacon-house, and had a very prosperous tide of four hours' work, being the longest yet experienced by half an hour.

The boats left the rock again at ten o'clock, and the weather having cleared up as we drew near the vessel, the eighteen artificers who had remained on board were observed upon deck, but as the boats approached they sought their way below, being quite ashamed of their conduct. This was the only instance of refusal to go to the rock which occurred during

the whole progress of the work, excepting that of the four men who declined working upon Sunday, a case which the writer did not conceive to be at all analogous to the present. It may here be mentioned, much to the credit of these four men, that they stood foremost in embarking for the rock this morning. 1807

It was fortunate that a landing was not attempted this evening, for at eight o'clock the wind shifted to E.S.E., and at ten it had become a hard gale, when fifty fathoms of the floating light's hempen cable were veered out. The gale still increasing, the ship rolled and laboured excessively, and at midnight eighty fathoms of cable were veered out; while the sea continued to strike the vessel with a degree of force which had not before been experienced. Saturday, 5th Sept.

During the last night there was little rest on board of the *Pharos*, and daylight, though anxiously wished for, brought no relief, as the gale continued with unabated violence. The sea struck so hard upon the vessel's bows that it rose in great quantities, or in "green seas," as the sailors termed it, which were carried by the wind as far aft as the quarter-deck, and not unfrequently over the stern of the ship altogether. It fell occasionally so heavily on the skylight of the writer's cabin, though so far aft as to be within five feet of the helm, that the glass was broken to pieces before the dead-light could be got into its place, so that the water poured down in great quantities. In shutting out the water, the admission of light was prevented, and in the morning all continued in the most comfortless state of darkness. About ten o'clock a.m. the wind shifted to N.E., and blew, if possible, harder than before, and it was accompanied by a much heavier swell of sea. In the course of the gale, the part of the cable in the hause-hole had been so often shifted that nearly the whole length of one of her hempen cables, of 120 fathoms, had been veered out, besides the chain-moorings. The cable, for its preservation, was also carefully served or wattled with pieces of canvas round the windlass, and with leather well greased in the hause-hole. In this state things remained during the whole day, every sea which struck the vessel—and the seas followed each other in close succession—causing her to shake, and all on board occasionally to tremble. At each of these strokes of the sea the rolling and pitching of the vessel ceased for a time, and her motion was felt as if she had either broke adrift before the wind or were in the act of sinking; but, when another sea came, she ranged up against it with great force, Sunday, 6th Sept.

1807 and this became the regular intimation of our being still riding at anchor.

About eleven o'clock, the writer with some difficulty got out of bed, but, in attempting to dress, he was thrown twice upon the floor at the opposite side of the cabin. In an undressed state he made shift to get about half-way up the companion-stairs, with an intention to observe the state of the sea and of the ship upon deck; but he no sooner looked over the companion than a heavy sea struck the vessel, which fell on the quarter-deck, and rushed down-stairs into the officers' cabin in so considerable a quantity that it was found necessary to lift one of the scuttles in the floor, to let the water into the limbers of the ship, as it dashed from side to side in such a manner as to run into the lower tier of beds. Having been foiled in this attempt, and being completely wetted, he again got below and went to bed. In this state of the weather the seamen had to move about the necessary or indispensable duties of the ship with the most cautious use both of hands and feet, while it required all the art of the landsman to keep within the precincts of his bed. The writer even found himself so much tossed about that it became necesssary, in some measure, to shut himself in bed, in order to avoid being thrown upon the floor. Indeed, such was the motion of the ship that it seemed wholly impracticable to remain in any other than a lying posture. On deck the most stormy aspect presented itself, while below all was wet and comfortless.

About two o'clock p.m. a great alarm was given throughout the ship from the effects of a very heavy sea which struck her, and almost filled the waist, pouring down into the berths below, through every chink and crevice of the hatches and skylights. From the motion of the vessel being thus suddenly deadened or checked, and from the flowing in of the water above, it is believed there was not an individual on board who did not think, at the moment, that the vessel had foundered, and was in the act of sinking. The writer could withstand this no longer, and as soon as she again began to range to the sea he determined to make another effort to get upon deck. In the first instance, however, he groped his way in darkness from his own cabin through the berths of the officers, where all was quietness. He next entered the galley and other compartments occupied by the artificers. Here also all was shut up in darkness, the fire having been drowned out in the early part of the gale. Several of the artificers were employed in prayer, repeat-

ing psalms, and other devotional exercises in a full tone of voice; others 1807
protesting that, if they should fortunately get once more on shore, no one should ever see them afloat again. With the assistance of the landing-master, the writer made his way, holding on step by step, among the numerous impediments which lay in the way. Such was the creaking noise of the bulkheads or partitions, the dashing of the water, and the whistling noise of the winds, that it was hardly possible to break in upon such a confusion of sounds. In one or two instances, anxious and repeated inquiries were made by the artificers as to the state of things upon deck, to which the captain made the usual answer, that it could not blow long in this way, and that we must soon have better weather. The next berth in succession, moving forward in the ship, was that allotted for the seamen. Here the scene was considerably different. Having reached the middle of this darksome berth without its inmates being aware of any intrusion, the writer had the consolation of remarking that, although they talked of bad weather and the cross accidents of the sea, yet the conversation was carried on in that sort of tone and manner which bespoke an ease and composure of mind highly creditable to them and pleasing to him. The writer immediately accosted the seamen about the state of the ship. To these inquiries they replied that the vessel being light, and having but little hold of the water, no top-rigging, with excellent ground-tackle, and everything being fresh and new, they felt perfect confidence in their situation.

It being impossible to open any of the hatches in the fore part of the ship in communicating with the deck, the watch was changed by passing through the several berths to the companion-stair leading to the quarter-deck. The writer, therefore, made the best of his way aft, and, on a second attempt to look out, he succeeded, and saw indeed an astonishing sight. The sea or waves appeared to be ten or fifteen feet in height of unbroken water, and every approaching billow seemed as if it would overwhelm our vessel, but she continued to rise upon the waves and to fall between the seas in a very wonderful manner. It seemed to be only those seas which caught her in the act of rising which struck her with so much violence and threw such quantities of water aft. On deck there was only one solitary individual looking out, to give the alarm in the event of the ship breaking from her moorings. The seaman on watch continued only two hours; he who kept watch

1807 at this time was a tall, slender man of a black complexion; he had no greatcoat nor over-all of any kind, but was simply dressed in his ordinary jacket and trousers; his hat was tied under his chin with a napkin, and he stood aft the foremast, to which he had lashed himself with a gasket or small rope round his waist, to prevent his falling upon deck or being washed overboard. When the writer looked up, he appeared to smile, which afforded a further symptom of the confidence of the crew in their ship. This person on watch was as completely wetted as if he had been drawn through the sea, which was given as a reason for his not putting on a greatcoat, that he might wet as few of his clothes as possible, and have a dry shift when he went below. Upon deck everything that was movable was out of sight, having either been stowed below, previous to the gale, or been washed overboard. Some trifling parts of the quarter boards were damaged by the breach of the sea; and one of the boats upon deck was about one-third full of water, the oyle-hole or drain having been accidentally stopped up, and part of her gunwale had received considerable injury. These observations were hastily made, and not without occasionally shutting the companion, to avoid being wetted by the successive seas which broke over the bows and fell upon different parts of the deck according to the impetus with which the waves struck the vessel. By this time it was about three o'clock in the afternoon, and the gale, which had now continued with unabated force for twenty-seven hours, had not the least appearance of going off.

In the dismal prospect of undergoing another night like the last, and being in imminent hazard of parting from our cable, the writer thought it necessary to advise with the master and officers of the ship as to the probable event of the vessel's drifting from her moorings. They severally gave it as their opinion that we had now every chance of riding out the gale, which, in all probability, could not continue with the same fury many hours longer; and that even if she should part from her anchor, the storm-sails had been laid to hand, and could be bent in a very short time. They further stated that from the direction of the wind being N.E., she would sail up the Firth of Forth to Leith Roads. But if this should appear doubtful, after passing the Island and Light of May, it might be advisable at once to steer for Tyningham Sands, on the western side of Dunbar, and there run the vessel ashore. If this should happen at the time of high-water, or during the ebbing

of the tide, they were of opinion, from the flatness and strength of the floating light, that no danger would attend her taking the ground, even with a very heavy sea. The writer, seeing the confidence which these gentlemen possessed with regard to the situation of things, found himself as much relieved with this conversation as he had previously been with the seeming indifference of the forecastle-men, and the smile of the watch upon deck, though literally lashed to the foremast. From this time he felt himself almost perfectly at ease; at any rate, he was entirely resigned to the ultimate result. 1807

About six o'clock in the evening the ship's company was heard moving upon deck, which on the present occasion was rather the cause of alarm. The writer accordingly rang his bell to know what was the matter, when he was informed by the steward that the weather looked considerably better, and that the men upon deck were endeavouring to ship the smoke-funnel of the galley that the people might get some meat. This was a more favourable account than had been anticipated. During the last twenty-one hours he himself had not only had nothing to eat, but he had almost never passed a thought on the subject. Upon the mention of a change of weather, he sent the steward to learn how the artificers felt, and on his return he stated that they now seemed to be all very happy, since the cook had begun to light the galley-fire and make preparations for the suet-pudding of Sunday, which was the only dish to be attempted for the mess, from the ease with which it could both be cooked and served up.

The principal change felt upon the ship as the wind abated was her increased rolling motion, but the pitching was much diminished, and now hardly any sea came farther aft than the foremast; but she rolled so extremely hard as frequently to dip and take in water over the gunwales and rails in the waist. By nine o'clock all hands had been refreshed by the exertions of the cook and steward, and were happy in the prospect of the worst of the gale being over. The usual complement of men was also now set on watch, and more quietness was experienced throughout the ship. Although the previous night had been a very restless one, it had not the effect of inducing repose in the writer's berth on the succeeding night; for having been so much tossed about in bed during the last thirty hours, he found no easy spot to turn to, and his body was all sore to the touch, which ill accorded with the unyielding materials with which his bed-place was surrounded.

1807 Monday, 7th Sept. This morning, about eight o'clock, the writer was agreeably surprised to see the scuttle of his cabin skylight removed, and the bright rays of the sun admitted. Although the ship continued to roll excessively, and the sea was still running very high, yet the ordinary business on board seemed to be going forward on deck. It was impossible to steady a telescope, so as to look minutely at the progress of the waves and trace their breach upon the Bell Rock; but the height to which the cross-running waves rose in sprays when they met each other was truly grand, and the continued roar and noise of the sea was very perceptible to the ear. To estimate the height of the sprays at forty or fifty feet would surely be within the mark. Those of the workmen who were not much afflicted with sea-sickness came upon deck, and the wetness below being dried up, the cabins were again brought into a habitable state. Every one seemed to meet as if after a long absence, congratulating his neighbour upon the return of good weather. Little could be said as to the comfort of the vessel, but after riding out such a gale, no one felt the least doubt or hesitation as to the safety and good condition of her moorings. The master and mate were extremely anxious, however, to heave in the hempen cable, and see the state of the clinch or iron ring of the chain-cable. But the vessel rolled at such a rate that the seamen could not possibly keep their feet at the windlass nor work the handspikes, though it had been several times attempted since the gale took off.

About twelve noon, however, the vessel's motion was observed to be considerably less, and the sailors were enabled to walk upon deck with some degree of freedom. But, to the astonishment of every one, it was soon discovered that the floating light was adrift! The windlass was instantly manned, and the men soon gave out that there was no strain upon the cable. The mizzen sail, which was bent for the occasional purpose of making the vessel ride more easily to the tide, was immediately set, and the other sails were also hoisted in a short time, when, in no small consternation, we bore away about one mile to the south-westward of the former station, and there let go the best bower anchor and cable in twenty fathoms water, to ride until the swell of the sea should fall, when it might be practicable to grapple for the moorings, and find a better anchorage for the ship.

Tuesday, 15th Sept. This morning, at five a.m., the bell rung as a signal for landing upon the rock, a sound which, after a lapse of ten days, it is believed

was welcomed by every one on board. There being a heavy breach of sea at the eastern creek, we landed, though not without difficulty, on the western side, every one seeming more eager than another to get upon the rock; and never did hungry men sit down to a hearty meal with more appetite than the artificers began to pick the dulse from the rocks. This marine plant had the effect of reviving the sickly, and seemed to be no less relished by those who were more hardy. 1807

While the water was ebbing, and the men were roaming in quest of their favourite morsel, the writer was examining the effects of the storm upon the forge and loose apparatus left upon the rock. Six large blocks of granite which had been landed, by way of experiment, on the 1st instant, were now removed from their places and, by the force of the sea, thrown over a rising ledge into a hole at the distance of twelve or fifteen paces from the place on which they had been landed. This was a pretty good evidence both of the violence of the storm and the agitation of the sea upon the rock. The safety of the smith's forge was always an object of essential regard. The ash-pan of the hearth or fireplace, with its weighty cast-iron back, had been washed from their places of supposed security; the chains of attachment had been broken, and these ponderous articles were found at a very considerable distance in a hole on the western side of the rock; while the tools and picks of the Aberdeen masons were scattered about in every direction. It is however remarkable that not a single article was ultimately lost.

This being the night on which the floating light was advertised to be lighted, it was accordingly exhibited, to the great joy of every one.

The writer was made happy to-day by the return of the Lighthouse yacht from a voyage to the Northern Lighthouses. Having immediately removed on board of this fine vessel of eighty-one tons register, the artificers gladly followed; for, though they found themselves more pinched for accommodation on board of the yacht, and still more so in the *Smeaton*, yet they greatly preferred either of these to the *Pharos*, or floating light, on account of her rolling motion, though in all respects fitted up for their conveniency. Wednesday, 16th Sept.

The writer called them to the quarter-deck and informed them that, having been one month afloat, in terms of their agreement they were now at liberty to return to the workyard at Arbroath if they preferred this to continuing at the Bell Rock. But they replied that, in the prospect of soon getting the beacon erected upon the rock, and having





1807 made a change from the floating light, they were now perfectly reconciled to their situation, and would remain afloat till the end of the working season.

Thursday, 17th Sept. The wind was at N.E. this morning, and though there were only light airs, yet there was a pretty heavy swell coming ashore upon the rock. The boats landed at half-past seven o'clock a.m., at the creek on the southern side of the rock, marked Port Hamilton. But as one of the boats was in the act of entering this creek, the seaman at the bow-oar, who had just entered the service, having inadvertently expressed some fear from a heavy sea which came rolling towards the boat, and one of the artificers having at the same time looked round and missed a stroke with his oar, such a preponderance was thus given to the rowers upon the opposite side that when the wave struck the boat it threw her upon a ledge of shelving rocks, where the water left her, and she having *kanted* to seaward, the next wave completely filled her with water. After making considerable efforts the boat was again got afloat in the proper track of the creek, so that we landed without any other accident than a complete ducking. There being no possibility of getting a shift of clothes, the artificers began with all speed to work, so as to bring themselves into heat, while the writer and his assistants kept as much as possible in motion. Having remained more than an hour upon the rock, the boats left it at half-past nine; and, after getting on board, the writer recommended to the artificers, as the best mode of getting into a state of comfort, to strip off their wet clothes and go to bed for an hour or two. No further inconveniency was felt, and no one seemed to complain of the affection called "catching cold."

Friday, 18th Sept. An important occurrence connected with the operations of this season was the arrival of the *Smeaton* at four p.m., having in tow the six principal beams of the beacon-house, together with all the stanchions and other work on board for fixing it on the rock. The mooring of the floating light was a great point gained, but in the erection of the beacon at this late period of the season new difficulties presented themselves. The success of such an undertaking at any season was precarious, because a single day of bad weather occurring before the necessary fixtures could be made might sweep the whole apparatus from the rock. Notwithstanding these difficulties, the writer had determined to make the trial, although he could almost have wished,

upon looking at the state of the clouds and the direction of the wind, that the apparatus for the beacon had been still in the workyard. 1807

The main beams of the beacon were made up in two separate rafts, fixed with bars and bolts of iron. One of these rafts, not being immediately wanted, was left astern of the floating light, and the other was kept in tow by the *Smeaton,* at the buoy nearest to the rock. The Lighthouse yacht rode at another buoy with all hands on board that could possibly be spared out of the floating-light. The party of artificers and seamen which landed on the rock counted altogether forty in number. At half-past eight o'clock a derrick, or mast of thirty feet in height, was erected and properly supported with guy-ropes, for suspending the block for raising the first principal beam of the beacon; and a winch machine was also bolted down to the rock for working the purchase-tackle. **Saturday, 19th Sept.**

Upon raising the derrick, all hands on the rock spontaneously gave three hearty cheers, as a favourable omen of our future exertions in pointing out more permanently the position of the rock. Even to this single spar of timber, could it be preserved, a drowning man might lay hold. When the *Smeaton* drifted on the 2nd of this month such a spar would have been sufficient to save us till she could have come to our relief.

The wind this morning was variable, but the weather continued extremely favourable for the operations throughout the whole day. At six a.m. the boats were in motion, and the raft, consisting of four of the six principal beams of the beacon-house, each measuring about sixteen inches square, and fifty feet in length, was towed to the rock, where it was anchored, that it might *ground* upon it as the water ebbed. The sailors and artificers, including all hands, to-day counted no fewer than fifty-two, being perhaps the greatest number of persons ever collected upon the Bell Rock. It was early in the tide when the boats reached the rock, and the men worked a considerable time up to their middle in water, every one being more eager than his neighbour to be useful. Even the four artificers who had hitherto declined working on Sunday were to-day most zealous in their exertions. They had indeed become so convinced of the precarious nature and necessity of the work that they never afterwards absented themselves from the rock on Sunday when a landing was practicable. **Sunday, 20th Sept.**

Having made fast a piece of very good new line, at about two-thirds

1807 from the lower end of one of the beams, the purchase-tackle of the derrick was hooked into the turns of the line, and it was speedily raised by the number of men on the rock and the power of the winch tackle. When this log was lifted to a sufficient height, its foot, or lower end, was *stepped* into the spot which had been previously prepared for it. Two of the great iron stanchions were then set into their respective holes on each side of the beam, when a rope was passed round them and the beam, to prevent it from slipping till it could be more permanently fixed. The derrick, or upright spar used for carrying the tackle to raise the first beam, was placed in such a position as to become useful for supporting the upper end of it, which now became, in its turn, the prop of the tackle for raising the second beam. The whole difficulty of this operation was in the raising and propping of the first beam, which became a convenient derrick for raising the second, these again a pair of shears for lifting the third, and the shears a triangle for raising the fourth. Having thus got four of the six principal beams set on end, it required a considerable degree of trouble to get their upper ends to fit. Here they formed the apex of a cone, and were all together mortised into a large piece of beechwood, and secured, for the present, with ropes, in a temporary manner. During the short period of one tide all that could further be done for their security was to put a single screw-bolt through the great kneed bats or stanchions on each side of the beams, and screw the nut home.

In this manner these four principal beams were erected, and left in a pretty secure state. The men had commenced while there was about two or three feet of water upon the side of the beacon, and as the sea was smooth they continued the work equally long during flood-tide. Two of the boats being left at the rock to take off the joiners, who were busily employed on the upper parts till two o'clock p.m., this tide's work may be said to have continued for about seven hours, which was the longest that had hitherto been got upon the rock by at least three hours.

When the first boats left the rock with the artificers employed on the lower part of the work during the flood-tide, the beacon had quite a novel appearance. The beams erected formed a common base of about thirty-three feet, meeting at the top, which was about forty-five feet above the rock, and here half a dozen of the artificers were still at work. After clearing the rock the boats made a stop, when three

hearty cheers were given, which were returned with equal goodwill by 1807
those upon the beacon, from the personal interest which every one felt in the prosperity of this work, so intimately connected with his safety.

All hands having returned to their respective ships, they got a shift of dry clothes and some refreshment. Being Sunday, they were afterwards convened by signal on board of the Lighthouse yacht, when prayers were read; for every heart upon this occasion felt gladness, and every mind was disposed to be thankful for the happy and successful termination of the operations of this day.

The remaining two principal beams were erected in the course of Monday, 21st Sept.
this tide, which, with the assistance of those set up yesterday, was found to be a very simple operation.

The six principal beams of the beacon were thus secured, at least in a temporary manner, in the course of two tides, or in the short space of about eleven hours and a half. Such is the progress that may be made when active hands and willing minds set properly to work in operations
of this kind. Having now got the weighty part of this work over, Tuesday, 22nd Sept.
and being thereby relieved of the difficulty both of landing and victualling such a number of men, the *Smeaton* could now be spared, and she was accordingly despatched to Arbroath for a supply of water and provisions, and carried with her six of the artificers who could best be spared.

In going out of the eastern harbour, the boat which the writer steered Wednesday, 23rd Sept.
shipped a sea, that filled her about one-third with water. She had also been hid for a short time, by the waves breaking upon the rock, from the sight of the crew of the preceding boat, who were much alarmed for our safety, imagining for a time that she had gone down.

The *Smeaton* returned from Arbroath this afternoon, but there was so much sea that she could not be made fast to her moorings, and the vessel was obliged to return to Arbroath without being able either to deliver the provisions or take the artificers on board. The Lighthouse yacht was also soon obliged to follow her example, as the sea was breaking heavily over her bows. After getting two reefs in the mainsail, and the third or storm-jib set, the wind being S.W., she bent to windward, though blowing a hard gale, and got into St. Andrews Bay, where we passed the night under the lee of Fifeness.

At two o'clock this morning we were in St. Andrews Bay, standing Thursday, 24th Sept.
off and on shore, with strong gales of wind at S.W.; at seven we

1807 were off the entrance of the Tay; at eight stood towards the rock, and at ten passed to leeward of it, but could not attempt a landing. The beacon, however, appeared to remain in good order, and by six p.m. the vessel had again beaten up to St. Andrews Bay, and got into somewhat smoother water for the night.

Friday, 25th Sept. At seven o'clock bore away for the Bell Rock, but finding a heavy sea running on it were unable to land. The writer, however, had the satisfaction to observe, with his telescope, that everything about the beacon appeared entire; and although the sea had a most frightful appearance, yet it was the opinion of every one that, since the erection of the beacon, the Bell Rock was divested of many of its terrors, and had it been possible to have got the boats hoisted out and manned, it might have even been found practicable to land. At six it blew so hard that it was found necessary to strike the topmast and take in a third reef of the mainsail, and under this low canvas we soon reached St. Andrews Bay, and got again under the lee of the land for the night. The artificers, being sea-hardy, were quite reconciled to their quarters on board of the Lighthouse yacht; but it is believed that hardly any consideration would have induced them again to take up their abode in the floating light.

Saturday, 26th Sept. At daylight the yacht steered towards the Bell Rock, and at eight a.m. made fast to her moorings; at ten, all hands, to the amount of thirty, landed, when the writer had the happiness to find that the beacon had withstood the violence of the gale and the heavy breach of sea, everything being found in the same state in which it had been left on the 21st. The artificers were now enabled to work upon the rock throughout the whole day, both at low and high water, but it required the strictest attention to the state of the weather, in case of their being overtaken with a gale, which might prevent the possibility of getting them off the rock.

Two somewhat memorable circumstances in the annals of the Bell Rock attended the operations of this day: one was the removal of Mr. James Dove, the foreman smith, with his apparatus, from the rock to the upper part of the beacon, where the forge was now erected on a temporary platform, laid on the cross beams or upper framing. The other was the artificers having dined for the first time upon the rock, their dinner being cooked on board of the yacht, and sent to them by one of the boats. But what afforded the greatest happiness and relief

was the removal of the large bellows, which had all along been a source of much trouble and perplexity, by their hampering and incommoding the boat which carried the smiths and their apparatus. 1807

Saturday, 3rd Oct.

The wind being west to-day, the weather was very favourable for operations at the rock, and during the morning and evening tides, with the aid of torch-light, the masons had seven hours' work upon the site of the building. The smiths and joiners, who landed at half-past six a.m., did not leave the rock till a quarter-past eleven p.m., having been at work, with little intermission, for sixteen hours and three-quarters. When the water left the rock, they were employed at the lower parts of the beacon, and as the tide rose or fell, they shifted the place of their operations. From these exertions, the fixing and securing of the beacon made rapid advancement, as the men were now landed in the morning, and remained throughout the day. But, as a sudden change of weather might have prevented their being taken off at the proper time of tide, a quantity of bread and water was always kept on the beacon.

During this period of working at the beacon all the day, and often a great part of the night, the writer was much on board of the tender; but, while the masons could work on the rock, and frequently also while it was covered by the tide, he remained on the beacon; especially during the night, as he made a point of being on the rock to the latest hour, and was generally the last person who stepped into the boat. He had laid this down as part of his plan of procedure; and in this way had acquired, in the course of the first season, a pretty complete knowledge and experience of what could actually be done at the Bell Rock, under all circumstances of the weather. By this means also his assistants, and the artificers and mariners, got into a systematic habit of proceeding at the commencement of the work, which, it is believed, continued throughout the whole of the operations.

Sunday, 4th Oct.

The external part of the beacon was now finished, with its supports and bracing-chains, and whatever else was considered necessary for its stability, in so far as the season would permit; and although much was still wanting to complete this fabric, yet it was in such a state that it could be left without much fear of the consequences of a storm. The painting of the upper part was nearly finished this afternoon; and the *Smeaton* had brought off a quantity of brushwood and other articles, for the purpose of heating or charring the lower part of the principal

1807 beams, before being laid over with successive coats of boiling pitch, to the height of from eight to twelve feet, or as high as the rise of spring-tides. A small flagstaff having also been erected to-day, a flag was displayed for the first time from the beacon, by which its perspective effect was greatly improved. On this, as on all like occasions at the Bell Rock, three hearty cheers were given ; and the steward served out a dram of rum to all hands, while the Lighthouse yacht, *Smeaton*, and floating light, hoisted their colours in compliment to the erection.

Monday, 5th Oct. In the afternoon, and just as the tide's work was over, Mr. John Rennie, engineer, accompanied by his son Mr. George, on their way to the harbour works of Fraserburgh, in Aberdeenshire, paid a visit to the Bell Rock, in a boat from Arbroath. It being then too late in the tide for landing, they remained on board of the Lighthouse yacht all night, when the writer, who had now been secluded from society for several weeks, enjoyed much of Mr. Rennie's interesting conversation, both on general topics, and professionally upon the progress of the Bell Rock works, on which he was consulted as chief engineer.

Tuesday, 6th Oct. The artificers landed this morning at nine, after which one of the boats returned to the ship for the writer and Messrs. Rennie, who, upon landing, were saluted with a display of the colours from the beacon and by three cheers from the workmen. Everything was now in a prepared state for leaving the rock, and giving up the works afloat for this season, excepting some small articles, which would still occupy the smiths and joiners for a few days longer. They accordingly shifted on board of the *Smeaton*, while the yacht left the rock for Arbroath, with Messrs. Rennie, the writer, and the remainder of the artificers. But, before taking leave, the steward served out a farewell glass, when three hearty cheers were given, and an earnest wish expressed that everything, in the spring of 1808, might be found in the same state of good order as it was now about to be left.

## II

## OPERATIONS OF 1808

1808 Monday, 29th Feb. The writer sailed from Arbroath at one a.m. in the Lighthouse yacht. At seven the floating light was hailed, and all on board found to be well. The crew were observed to have a very healthy-like ap-

pearance, and looked better than at the close of the works upon the rock. They seemed only to regret one thing, which was the secession of their cook, Thomas Elliot—not on account of his professional skill, but for his facetious and curious manner. Elliot had something peculiar in his history, and was reported by his comrades to have seen better days. He was, however, happy with his situation on board of the floating light, and, having a taste for music, dancing, and acting plays, he contributed much to the amusement of the ship's company in their dreary abode during the winter months. He had also recommended himself to their notice as a good shipkeeper, for as it did not answer Elliot to go often ashore, he had always given up his turn of leave to his neighbours. At his own desire he was at length paid off, when he had a considerable balance of wages to receive, which he said would be sufficient to carry him to the West Indies, and he accordingly took leave of the Lighthouse service. 1808

At daybreak the Lighthouse yacht, attended by a boat from the floating light, again stood towards the Bell Rock. The weather felt extremely cold this morning, the thermometer being at 34 degrees, with the wind at east, accompanied by occasional showers of snow, and the marine barometer indicated 29.80. At half-past seven the sea ran with such force upon the rock that it seemed doubtful if a landing could be effected. At half-past eight, when it was fairly above water, the writer took his place in the floating light's boat with the artificers, while the yacht's boat followed, according to the general rule of having two boats afloat in landing expeditions of this kind, that, in case of accident to one boat, the other might assist. In several unsuccessful attempts the boats were beat back by the breach of the sea upon the rock. On the eastern side it separated into two distinct waves, which came with a sweep round to the western side, where they met; and at the instant of their confluence the water rose in spray to a considerable height. Watching what the sailors term a *smooth,* we caught a favourable opportunity, and in a very dexterous manner the boats were rowed between the two seas, and made a favourable landing at the western creek. Tuesday, 1st March.

At the latter end of last season, as was formerly noticed, the beacon was painted white, and from the bleaching of the weather and the sprays of the sea the upper parts were kept clean; but within the range of the tide the principal beams were observed to be thickly coated with

1808 a green stuff, the *conferva* of botanists. Notwithstanding the intrusion of these works, which had formerly banished the numerous seals that played about the rock, they were now seen in great numbers, having been in an almost undisturbed state for six months. It had now also, for the first time, got some inhabitants of the feathered tribe: in particular the scarth or cormorant, and the large herring-gull, had made the beacon a resting-place, from its vicinity to their fishing-grounds. About a dozen of these birds had rested upon the cross-beams, which, in some places, were coated with their dung; and their flight, as the boats approached, was a very unlooked-for indication of life and habitation on the Bell Rock, conveying the momentary idea of the conversion of this fatal rock, from being a terror to the mariner, into a residence of man and a safeguard to shipping.

Upon narrowly examining the great iron stanchions with which the beams were fixed to the rock, the writer had the satisfaction of finding that there was not the least appearance of working or shifting at any of the joints or places of connection; and, excepting the loosening of the bracing-chains, everything was found in the same entire state in which it had been left in the month of October. This, in the estimation of the writer, was a matter of no small importance to the future success of the work. He from that moment saw the practicability and propriety of fitting up the beacon, not only as a place of refuge in case of accident to the boats in landing, but as a residence for the artificers during the working months.

While upon the top of the beacon the writer was reminded by the landing-master that the sea was running high, and that it would be necessary to set off while the rock afforded anything like shelter to the boats, which by this time had been made fast by a long line to the beacon, and rode with much agitation, each requiring two men with boat-hooks to keep them from striking each other, or from ranging up against the beacon. But even under these circumstances the greatest confidence was felt by every one, from the security afforded by this temporary erection. For, supposing that the wind had suddenly increased to a gale, and that it had been found unadvisable to go into the boats; or, supposing they had drifted or sprung a leak from striking upon the rocks; in any of these possible and not at all improbable cases, those who might thus have been left upon the rock had now something to lay hold of, and, though occupying this dreary habitation

of the sea-gull and the cormorant, affording only bread and water, yet *life* would be preserved, and the mind would still be supported by the hope of being ultimately relieved. 1808

On the 25th of May the writer embarked at Arbroath, on board of the *Sir Joseph Banks*, for the Bell Rock, accompanied by Mr. Logan senior, foreman builder, with twelve masons, and two smiths, together with thirteen seamen, including the master, mate, and steward. **Wednesday, 25th May.**

Mr. James Wilson, now commander of the *Pharos* floating light, and landing-master, in the room of Mr. Sinclair, who had left the service, came into the writer's cabin this morning at six o'clock, and intimated that there was a good appearance of landing on the rock. Everything being arranged, both boats proceeded in company, and at eight a.m. they reached the rock. The lighthouse colours were immediately hoisted upon the flagstaff of the beacon, a compliment which was duly returned by the tender and floating light, when three hearty cheers were given, and a glass of rum was served out to all hands to drink success to the operations of 1808. **Thursday, 26th May.**

This morning the wind was at east, blowing a fresh gale, the weather being hazy, with a considerable breach of sea setting in upon the rock. The morning bell was therefore rung, in some doubt as to the practicability of making a landing. After allowing the rock to get fully up, or to be sufficiently left by the tide, that the boats might have some shelter from the range of the sea, they proceeded at eight a.m., and upon the whole made a pretty good landing; and after two hours and three-quarters' work returned to the ship in safety. **Friday, 27th May.**

In the afternoon the wind considerably increased, and, as a pretty heavy sea was still running, the tender rode very hard, when Mr. Taylor, the commander, found it necessary to take in the bowsprit, and strike the fore and main topmasts, that she might ride more easily. After consulting about the state of the weather, it was resolved to leave the artificers on board this evening, and carry only the smiths to the rock, as the sharpening of the irons was rather behind, from their being so much broken and blunted by the hard and tough nature of the rock, which became much more compact and hard as the depth of excavation was increased. Besides avoiding the risk of encumbering the boats with a number of men who had not yet got the full command of the oar in a breach of sea, the writer had another motive for leaving them behind. He wanted to examine the site of the building without

1808 interruption, and to take the comparative levels of the different inequalities of its area; and as it would have been painful to have seen men standing idle upon the Bell Rock, where all moved with activity, it was judged better to leave them on board. The boats landed at half-past seven p.m., and the landing-master, with the seamen, was employed during this tide in cutting the seaweeds from the several paths leading to the landing-places, to render walking more safe, for, from the slippery state of the surface of the rock, many severe tumbles had taken place. In the meantime the writer took the necessary levels, and having carefully examined the site of the building and considered all its parts, it still appeared to be necessary to excavate to the average depth of fourteen inches over the whole area of the foundation.

Saturday, 28th May. The wind still continued from the eastward with a heavy swell; and to-day it was accompanied with foggy weather and occasional showers of rain. Notwithstanding this, such was the confidence which the erection of the beacon had inspired that the boats landed the artificers on the rock under very unpromising circumstances, at half-past eight, and they continued at work till half-past eleven, being a period of three hours, which was considered a great tide's work in the present low state of the foundation. Three of the masons on board were so afflicted with sea-sickness that they had not been able to take any food for almost three days, and they were literally assisted into the boats this morning by their companions. It was, however, not a little surprising to see how speedily these men revived upon landing on the rock and eating a little dulse. Two of them afterwards assisted the sailors in collecting the chips of stone and carrying them out of the way of the pickmen; but the third complained of a pain in his head, and was still unable to do anything. Instead of returning to the tender with the boats, these three men remained on the beacon all day, and had their victuals sent to them along with the smiths'. From Mr. Dove, the foreman smith, they had much sympathy, for he preferred remaining on the beacon at all hazards, to be himself relieved from the malady of sea-sickness. The wind continuing high, with a heavy sea, and the tide falling late, it was not judged proper to land the artificers this evening, but in the twilight the boats were sent to fetch the people on board who had been left on the rock.

Sunday, 29th May. The wind was from the S.W. to-day, and the signal-bell rung, as

usual, about an hour before the period for landing on the rock. The writer was rather surprised, however, to hear the landing-master repeatedly call, "All hands for the rock!" and, coming on deck, he was disappointed to find the seamen only in the boats. Upon inquiry, it appeared that some misunderstanding had taken place about the wages of the artificers for Sundays. They had preferred wages for seven days statedly to the former mode of allowing a day for each tide's work on Sunday, as they did not like the appearance of working for double or even treble wages on Sunday, and would rather have it understood that their work on that day arose more from the urgency of the case than with a view to emolument. This having been judged creditable to their religious feelings, and readily adjusted to their wish, the boats proceeded to the rock, and the work commenced at nine a.m. 1808

Mr. Francis Watt commenced, with five joiners, to fit up a temporary platform upon the beacon, about twenty-five feet above the highest part of the rock. This platform was to be used as the site of the smith's forge, after the beacon should be fitted up as a barrack; and here also the mortar was to be mixed and prepared for the building, and it was accordingly termed the Mortar Gallery. Monday, 30th May.

The landing-master's crew completed the discharging from the *Smeaton* of her cargo of the cast-iron rails and timber. It must not here be omitted to notice that the *Smeaton* took in ballast from the Bell Rock, consisting of the shivers or chips of stone produced by the workmen in preparing the site of the building, which were now accumulating in great quantities on the rock. These the boats loaded, after discharging the iron. The object in carrying off these chips, besides ballasting the vessel, was to get them permanently out of the way, as they were apt to shift about from place to place with every gale of wind; and it often required a considerable time to clear the foundation a second time of this rubbish. The circumstance of ballasting a ship at the Bell Rock afforded great entertainment, especially to the sailors; and it was perhaps with truth remarked that the *Smeaton* was the first vessel that had ever taken on board ballast at the Bell Rock. Mr. Pool, the commander of this vessel, afterwards acquainted the writer that, when the ballast was landed upon the quay at Leith, many persons carried away specimens of it, as part of a cargo from the Bell Rock; when he added, that such was the interest excited, from the

1808 number of specimens carried away, that some of his friends suggested that he should have sent the whole to the Cross of Edinburgh, where each piece might have sold for a penny.

Tuesday, 31st May. In the evening the boats went to the rock, and brought the joiners and smiths, and their sickly companions, on board of the tender. These also brought with them two baskets full of fish, which they had caught at high-water from the beacon, reporting, at the same time, to their comrades, that the fish were swimming in such numbers over the rock at high-water that it was completely hid from their sight, and nothing seen but the movement of thousands of fish. They were almost exclusively of the species called the podlie, or young coal-fish. This discovery, made for the first time to-day by the workmen, was considered fortunate, as an additional circumstance likely to produce an inclination among the artificers to take up their residence in the beacon, when it came to be fitted up as a barrack.

Tuesday, 7th June. At three o'clock in the morning the ship's bell was rung as the signal for landing at the rock. When the landing was to be made before breakfast, it was customary to give each of the artificers and seamen a dram and a biscuit, and coffee was prepared by the steward for the cabins. Exactly at four o'clock the whole party landed from three boats, including one of those belonging to the floating light, with a part of that ship's crew, which always attended the works in moderate weather. The landing-master's boat, called the *Seaman,* but more commonly called the *Lifeboat,* took the lead. The next boat, called the *Mason,* was generally steered by the writer; while the floating light's boat, *Pharos,* was under the management of the boatswain of that ship.

Having now so considerable a party of workmen and sailors on the rock, it may be proper here to notice how their labours were directed. Preparations having been made last month for the erection of a second forge upon the beacon, the smiths commenced their operations both upon the lower and higher platforms. They were employed in sharpening the picks and irons for the masons, and in making bats and other apparatus of various descriptions connected with the fitting of the railways. The landing-master's crew were occupied in assisting the millwrights in laying the railways to hand. Sailors, of all other descriptions of men, are the most accommodating in the use of their hands. They worked freely with the boring-irons, and assisted in all the oper-

ations of the railways, acting by turns as boatmen, seamen, and artificers. We had no such character on the Bell Rock as the common labourer. All the operations of this department were cheerfully undertaken by the seamen, who, both on the rock and on shipboard, were the inseparable companions of every work connected with the erection of the Bell Rock Lighthouse. It will naturally be supposed that about twenty-five masons, occupied with their picks in executing and preparing the foundation of the lighthouse, in the course of a tide of about three hours, would make a considerable impression upon an area even of forty-two feet in diameter. But in proportion as the foundation was deepened, the rock was found to be much more hard and difficult to work, while the baling and pumping of water became much more troublesome. A joiner was kept almost constantly employed in fitting the picks to their handles, which, as well as the points to the irons, were very frequently broken. 1808

The Bell Rock this morning presented by far the most busy and active appearance it had exhibited since the erection of the principal beams of the beacon. The surface of the rock was crowded with men, the two forges flaming, the one above the other, upon the beacon, while the anvils thundered with the rebounding noise of their wooden supports, and formed a curious contrast with the occasional clamour of the surges. The wind was westerly, and the weather being extremely agreeable, as soon after breakfast as the tide had sufficiently overflowed the rock to float the boats over it, the smiths, with a number of the artificers, returned to the beacon, carrying their fishing-tackle along with them. In the course of the forenoon the beacon exhibited a still more extraordinary appearance than the rock had done in the morning. The sea being smooth, it seemed to be afloat upon the water, with a number of men supporting themselves in all the variety of attitude and position: while, from the upper part of this wooden house, the volumes of smoke which ascended from the forges gave the whole a very curious and fanciful appearance.

In the course of this tide it was observed that a heavy swell was setting in from the eastward, and the appearance of the sky indicated a change of weather, while the wind was shifting about. The barometer also had fallen from 30 in. to 29.6. It was, therefore, judged prudent to shift the vessel to the S.W. or more distant buoy. Her bowsprit was also soon afterwards taken in, the topmasts struck, and every-

1808 thing made *snug,* as seamen term it, for a gale. During the course of the night the wind increased and shifted to the eastward, when the vessel rolled very hard, and the sea often broke over her bows with great force.

Wednesday, 8th June. Although the motion of the tender was much less than that of the floating light — at least in regard to the rolling motion — yet she *sended,* or pitched, much. Being also of a very handsome build, and what seamen term very *clean aft,* the sea often struck her counter with such force that the writer, who possessed the aftermost cabin, being unaccustomed to this new vessel, could not divest himself of uneasiness; for when her stern fell into the sea, it struck with so much violence as to be more like the resistance of a rock than the sea. The water, at the same time, often rushed with great force up the rudder-case, and, forcing up the valve of the water-closet, the floor of his cabin was at times laid under water. The gale continued to increase, and the vessel rolled and pitched in such a manner that the hawser by which the tender was made fast to the buoy snapped, and she went adrift. In the act of swinging round to the wind she shipped a very heavy sea, which greatly alarmed the artificers, who imagined that we had got upon the rock; but this, from the direction of the wind, was impossible. The writer, however, sprung upon deck, where he found the sailors busily employed in rigging out the bowsprit and in setting sail. From the easterly direction of the wind, it was considered most advisable to steer for the Firth of Forth, and there wait a change of weather. At two p.m. we accordingly passed the Isle of May, at six anchored in Leith Roads, and at eight the writer landed, when he came in upon his friends, who were not a little surprised at his unexpected appearance, which gave an instantaneous alarm for the safety of things at the Bell Rock.

Thursday, 9th June. The wind still continued to blow very hard at E. by N., and the *Sir Joseph Banks* rode heavily, and even drifted with both anchors ahead, in Leith Roads. The artificers did not attempt to leave the ship last night; but there being upwards of fifty people on board, and the decks greatly lumbered with the two large boats, they were in a very crowded and impatient state on board. But to-day they got ashore, and amused themselves by walking about the streets of Edinburgh, some in very humble apparel, from having only the worst of their jackets with them, which, though quite suitable for their work,

were hardly fit for public inspection, being not only tattered, but greatly stained with the red colour of the rock. 1808

To-day the wind was at S.E., with light breezes and foggy weather. At six a.m. the writer again embarked for the Bell Rock, when the vessel immediately sailed. At eleven p.m., there being no wind, the kedge-anchor was *let go* off Anstruther, one of the numerous towns on the coast of Fife, where we waited the return of the tide. Friday, 10th June.

At six a.m. the *Sir Joseph* got under weigh, and at eleven was again made fast to the southern buoy at the Bell Rock. Though it was now late in the tide, the writer, being anxious to ascertain the state of things after the gale, landed with the artificers, to the number of forty-four. Everything was found in an entire state; but, as the tide was nearly gone, only half an hour's work had been got when the site of the building was overflowed. In the evening the boats again landed at nine, and, after a good tide's work of three hours with torch-light, the work was left off at midnight. To the distant shipping the appearance of things under night on the Bell Rock, when the work was going forward, must have been very remarkable, especially to those who were strangers to the operations. Mr. John Reid, principal lightkeeper, who also acted as master of the floating light during the working months at the rock, described the appearance of the numerous lights situated so low in the water, when seen at the distance of two or three miles, as putting him in mind of Milton's description of the fiends in the lower regions, adding, "for it seems greatly to surpass Will-o'-the-wisp, or any of those earthly spectres of which we have so often heard." Saturday, 11th June.

From the difficulties attending the landing on the rock, owing to the breach of sea which had for days past been around it, the artificers showed some backwardness at getting into the boats this morning; but after a little explanation this was got over. It was always observable that for some time after anything like danger had occurred at the rock, the workmen became much more cautious, and on some occasions their timidity was rather troublesome. It fortunately happened, however, that along with the writer's assistants and the sailors there were also some of the artificers themselves who felt no such scruples, and in this way these difficulties were the more easily surmounted. In matters where life is in danger it becomes necessary to treat even unfounded prejudices with tenderness, as an accident, under certain cir- Monday, 13th June.

1808 cumstances, would not only have been particularly painful to those giving directions, but have proved highly detrimental to the work, especially in the early stages of its advancement.

At four o'clock fifty-eight persons landed; but the tides being extremely languid, the water only left the higher parts of the rock, and no work could be done at the site of the building. A third forge was, however, put in operation during a short time, for the greater conveniency of sharpening the picks and irons, and for purposes connected with the preparations for fixing the railways on the rock. The weather towards the evening became thick and foggy, and there was hardly a breath of wind to ruffle the surface of the water. Had it not, therefore, been the noise from the anvils of the smiths who had been left on the beacon throughout the day, which afforded a guide for the boats, a landing could not have been attempted this evening, especially with such a company of artificers. This circumstance confirmed the writer's opinion with regard to the propriety of connecting large bells to be rung with machinery in the lighthouse, to be tolled day and night during the continuance of foggy weather.

Thursday, 23rd June. The boats landed this evening, when the artificers had again two hours' work. The weather still continuing very thick and foggy, more difficulty was experienced in getting on board of the vessels to-night than had occurred on any previous occasion, owing to a light breeze of wind which carried the sound of the bell and the other signals made on board of the vessels away from the rock. Having fortunately made out the position of the sloop *Smeaton* at the N.E. buoy—to which we were much assisted by the barking of the ship's dog,—we parted with the *Smeaton's* boat, when the boats of the tender took a fresh departure for that vessel, which lay about half a mile to the south-westward. Yet such is the very deceiving state of the tides, that, although there was a small binnacle and compass in the landing-master's boat, we had, nevertheless, passed the *Sir Joseph* a good way, when, fortunately, one of the sailors catched the sound of a blowing horn. The only fire-arms on board were a pair of swivels of one-inch calibre; but it is quite surprising how much the sound is lost in foggy weather, as the report was heard but at a very short distance. The sound from the explosion of gunpowder is so instantaneous that the effect of the small guns was not so good as either the blowing of a horn or the tolling of a bell, which afforded a more constant and steady direction for the pilot.

Landed on the rock with the three boats belonging to the tender at five p.m., and began immediately to bale the water out of the foundation-pit with a number of buckets, while the pumps were also kept in action with relays of artificers and seamen. The work commenced upon the higher parts of the foundation as the water left them, but it was now pretty generally reduced to a level. About twenty men could be conveniently employed at each pump, and it is quite astonishing in how short a time so great a body of water could be drawn off. The water in the foundation-pit at this time measured about two feet in depth, on an area of forty-two feet in diameter, and yet it was drawn off in the course of about half an hour. After this the artificers commenced with their picks and continued at work for two hours and a half, some of the sailors being at the same time busily employed in clearing the foundation of chips and in conveying the irons to and from the smiths on the beacon, where they were sharpened. At eight o'clock the sea broke in upon us and overflowed the foundation-pit, when the boats returned to the tender. 1808 Wednesday, 6th July.

The landing-master's bell rung this morning about four o'clock, and at half-past five, the foundation being cleared, the work commenced on the site of the building. But from the moment of landing, the squad of joiners and millwrights was at work upon the higher parts of the rock in laying the railways, while the anvils of the smiths resounded on the beacon, and such columns of smoke ascended from the forges that they were often mistaken by strangers at a distance for a ship on fire. After continuing three hours at work the foundation of the building was again overflowed, and the boats returned to the ship at half-past eight o'clock. The masons and pickmen had, at this period, a pretty long day on board of the tender, but the smiths and joiners were kept constantly at work upon the beacon, the stability and great conveniency of which had now been so fully shown that no doubt remained as to the propriety of fitting it up as a barrack. The workmen were accordingly employed, during the period of high-water, in making preparations for this purpose. Thursday, 7th July.

The foundation-pit now assumed the appearance of a great platform, and the late tides had been so favourable that it became apparent that the first course, consisting of a few irregular and detached stones for making up certain inequalities in the interior parts of the site of the building, might be laid in the course of the present spring-tides. Hav-

1808 ing been enabled to-day to get the dimensions of the foundation, or first stone, accurately taken, a mould was made of its figure, when the writer left the rock, after the tide's work of this morning, in a fast rowing-boat for Arbroath; and, upon landing, two men were immediately set to work upon one of the blocks from Mylnefield quarry, which was prepared in the course of the following day, as the stone-cutters relieved each other, and worked both night and day, so that it was sent off in one of the stone-lighters without delay.

Saturday, 9th July. The site of the foundation-stone was very difficult to work, from its depth in the rock; but being now nearly prepared, it formed a very agreeable kind of pastime at high-water for all hands to land the stone itself upon the rock. The landing-master's crew and artificers accordingly entered with great spirit into this operation. The stone was placed upon the deck of the *Hedderwick* praam-boat, which had just been brought from Leith, and was decorated with colours for the occasion. Flags were also displayed from the shipping in the offing, and upon the beacon. Here the writer took his station with the greater part of the artificers, who supported themselves in every possible position while the boats towed the praam from her moorings and brought her immediately over tbe site of the building, where her grappling anchors were let go. The stone was then lifted off the deck by a tackle hooked into a Lewis bat inserted into it, when it was gently lowered into the water and grounded on the site of the building, amidst the cheering acclamations of about sixty persons.

Sunday, 10th July. At eleven o'clock the foundation-stone was laid to hand. It was of a square form, containing about twenty cubic feet, and had the figures, or date, of 1808 simply cut upon it with a chisel. A derrick, or spar of timber, having been erected at the edge of the hole and guyed with ropes, the stone was then hooked to the tackle and lowered into its place, when the writer, attended by his assistants — Mr. Peter Logan, Mr. Francis Watt, and Mr. James Wilson, — applied the square, the level, and the mallet, and pronounced the following benediction: "May the Great Architect of the Universe complete and bless this building," on which three hearty cheers were given, and success to the future operations was drunk with the greatest enthusiasm.

Tuesday, 26th July. The wind being at S.E. this evening, we had a pretty heavy swell of sea upon the rock, and some difficulty attended our getting off in safety, as the boats got aground in the creek and were in danger of

being upset. Upon extinguishing the torch-lights, about twelve in number, the darkness of the night seemed quite horrible; the water being also much charged with the phosphorescent appearance which is familiar to every one on shipboard, the waves, as they dashed upon the rock, were in some degree like so much liquid flame. The scene, upon the whole, was truly awful! 1808

In leaving the rock this evening, everything, after the torches were extinguished, had the same dismal appearance as last night, but so perfectly acquainted were the landing-master and his crew with the position of things at the rock, that comparatively little inconveniency was experienced on these occasions when the weather was moderate; such is the effect of habit, even in the most unpleasant situations. If, for example, it had been proposed to a person accustomed to a city life, at once to take up his quarters off a sunken reef and land upon it in boats at all hours of the night, the proposition must have appeared quite impracticable and extravagant; but this practice coming progressively upon the artificers, it was ultimately undertaken with the greatest alacrity. Notwithstanding this, however, it must be acknowledged that it was not till after much labour and peril, and many an anxious hour, that the writer is enabled to state that the site of the Bell Rock Lighthouse is fully prepared for the first entire course of the building. Wednesday, 27th July.

The artificers landed this morning at half-past ten, and after an hour and a half's work eight stones were laid, which completed the first entire course of the building, consisting of 123 blocks, the last of which was laid with three hearty cheers. Friday, 12th Aug.

Land at nine a.m., and by a quarter-past twelve noon twenty-three stones had been laid. The works being now somewhat elevated by the lower courses, we got quit of the very serious inconvenience of pumping water to clear the foundation-pit. This gave much facility to the operations, and was noticed with expressions of as much happiness by the artificers as the seamen had shown when relieved of the continual trouble of carrying the smith's bellows off the rock prior to the erection of the beacon. Saturday, 10th Sept.

Mr. Thomas Macurich, mate of the *Smeaton*, and James Scott, one of the crew, a young man about eighteen years of age, immediately went into their boat to make fast a hawser to the ring in the top of the floating buoy of the moorings, and were forthwith to proceed to land their cargo, so much wanted, at the rock. The tides at this period Wednesday, 21st Sept.

1808 were very strong, and the mooring-chain, when sweeping the ground, had caught hold of a rock or piece of wreck by which the chain was so shortened that when the tide flowed the buoy got almost under water, and little more than the ring appeared at the surface. When Macurich and Scott were in the act of making the hawser fast to the ring, the chain got suddenly disentangled at the bottom, and this large buoy, measuring about seven feet in height and three feet in diameter at the middle, tapering to both ends, being what seamen term a *Nun-buoy*, vaulted or sprung up with such force that it upset the boat, which instantly filled with water. Mr. Macurich, with much exertion, succeeded in getting hold of the boat's gunwale, still above the surface of the water, and by this means was saved; but the young man Scott was unfortunately drowned. He had in all probability been struck about the head by the ring of the buoy, for although surrounded with the oars and the thwarts of the boat which floated near him, yet he seemed entirely to want the power of availing himself of such assistance, and appeared to be quite insensible, while Pool, the master of the *Smeaton,* called loudly to him; and before assistance could be got from the tender, he was carried away by the strength of the current, and disappeared.

The young man Scott was a great favourite in the service, having had something uncommonly mild and complaisant in his manner; and his loss was therefore universally regretted. The circumstances of his case were also peculiarly distressing to his mother, as her husband, who was a seaman, had for three years past been confined to a French prison, and the deceased was the chief support of the family. In order in some measure to make up the loss to the poor woman for the monthly aliment regularly allowed her by her late son, it was suggested that a younger boy, a brother of the deceased, might be taken into the service. This appeared to be rather a delicate proposition, but it was left to the landing-master to arrange according to circumstances; such was the resignation, and at the same time the spirit, of the poor woman, that she readily accepted the proposal, and in a few days the younger Scott was actually afloat in the place of his brother. On representing this distressing case to the Board, the Commissioners were pleased to grant an annuity of £5 to Scott's mother.

The *Smeaton,* not having been made fast to the buoy, had, with the ebb-tide, drifted to leeward a considerable way eastward of the

rock, and could not, till the return of the flood-tide, be worked up to her moorings, so that the present tide was lost, notwithstanding all exertions which had been made both ashore and afloat with this cargo. The artificers landed at six a.m.; but, as no materials could be got upon the rock this morning, they were employed in boring trenail holes and in various other operations, and after four hours' work they returned on board the tender. When the *Smeaton* got up to her moorings, the landing-master's crew immediately began to unload her. There being too much wind for towing the praams in the usual way, they were warped to the rock in the most laborious manner by their windlasses, with successive grapplings and hawsers laid out for this purpose. At six p.m. the artificers landed, and continued at work till half-past ten, when the remaining seventeen stones were laid which completed the third entire course, or fourth of the lighthouse, with which the building operations were closed for the season. 1808

## III

## OPERATIONS OF 1809

The last night was the first that the writer had passed in his old quarters on board of the floating light for about twelve months, when the weather was so fine and the sea so smooth that even here he felt but little or no motion, excepting at the turn of the tide, when the vessel gets into what the seamen term the *trough of the sea*. At six a.m. Mr. Watt, who conducted the operations of the railways and beacon-house, had landed with nine artificers. At half-past one p.m. Mr. Peter Logan had also landed with fifteen masons, and immediately proceeded to set up the crane. The sheer-crane or apparatus for lifting the stones out of the praam-boats at the eastern creek had been already erected, and the railways now formed about two-thirds of an entire circle round the building: some progress had likewise been made with the reach towards the western landing-place. The floors being laid, the beacon now assumed the appearance of a habitation. The *Smeaton* was at her moorings, with the *Fernie* praam-boat astern, for which she was laying down moorings, and the tender being also at her station, the Bell Rock had again put on its former busy aspect. 1809 Wednesday, 24th May.

1809 Wednesday, 31st May. The landing-master's bell, often no very favourite sound, rung at six this morning; but on this occasion, it is believed, it was gladly received by all on board, as the welcome signal of the return of better weather. The masons laid thirteen stones to-day, which the seamen had landed, together with other building materials. During these twenty-four hours the wind was from the south, blowing fresh breezes, accompanied with showers of snow. In the morning the snow showers were so thick that it was with difficulty the landing-master, who always steered the leading boat, could make his way to the rock through the drift. But at the Bell Rock neither snow nor rain, nor fog nor wind, retarded the progress of the work, if unaccompanied by a heavy swell or breach of the sea.

The weather during the months of April and May had been uncommonly boisterous, and so cold that the thermometer seldom exceeded 40°, while the barometer was generally about 29.50. We had not only hail and sleet, but the snow on the last day of May lay on the decks and rigging of the ship to the depth of about three inches; and, although now entering upon the month of June, the length of the day was the chief indication of summer. Yet such is the effect of habit, and such was the expertness of the landing-master's crew, that, even in this description of weather, seldom a tide's work was lost. Such was the ardour and zeal of the heads of the several departments at the rock, including Mr. Peter Logan, foreman builder, Mr. Francis Watt, foreman millwright, and Captain Wilson, landing-master, that it was on no occasion necessary to address them, excepting in the way of precaution or restraint. Under these circumstances, however, the writer not unfrequently felt considerable anxiety, of which this day's experience will afford an example.

This morning, at a quarter-past eight, the artificers were landed as usual, and, after three hours and three-quarters' work, five stones were laid, the greater part of this tide having been taken up in completing the boring and trenailing of the stones formerly laid. At noon the writer, with the seamen and artificers, proceeded to the tender, leaving on the beacon the joiners, and several of those who were troubled with sea-sickness — among whom was Mr. Logan, who remained with Mr. Watt — counting altogether eleven persons. During the first and middle parts of these twenty-four hours the wind was from the east, blowing what the seamen term "fresh breezes"; but in the afternoon

it shifted to E.N.E., accompanied with so heavy a swell of sea that the 1809
*Smeaton* and tender struck their topmasts, launched in their boltsprits, and "made all snug" for a gale. At four p.m. the *Smeaton* was obliged to slip her moorings, and passed the tender, drifting before the wind, with only the foresail set. In passing, Mr. Pool hailed that he must run for the Firth of Forth to prevent the vessel from "riding under."

On board of the tender the writer's chief concern was about the eleven men left upon the beacon. Directions were accordingly given that everything about the vessel should be put in the best possible state, to present as little resistance to the wind as possible, that she might have the better chance of riding out the gale. Among these preparations the best bower cable was bent, so as to have a second anchor in readiness in case the mooring-hawser should give way, that every means might be used for keeping the vessel within sight of the prisoners on the beacon, and thereby keep them in as good spirits as possible. From the same motive the boats were kept afloat that they might be less in fear of the vessel leaving her station. The landing-master had, however, repeatedly expressed his anxiety for the safety of the boats, and wished much to have them hoisted on board. At seven p.m. one of the boats, as he feared, was unluckily filled with sea from a wave breaking into her, and it was with great difficulty that she could be baled out and got on board, with the loss of her oars, rudder, and loose thwarts. Such was the motion of the ship that in taking this boat on board her gunwale was stove in, and she otherwise received considerable damage. Night approached, but it was still found quite impossible to go near the rock. Consulting, therefore, the safety of the second boat, she also was hoisted on board of the tender.

At this time the cabins of the beacon were only partially covered, and had neither been provided with bedding nor a proper fireplace, while the stock of provisions was but slender. In these uncomfortable circumstances the people on the beacon were left for the night, nor was the situation of those on board of the tender much better. The rolling and pitching motion of the ship was excessive; and, excepting to those who had been accustomed to a residence in the floating light, it seemed quite intolerable. Nothing was heard but the hissing of the winds and the creaking of the bulkheads or partitions of the ship; the

1809 night was, therefore, spent in the most unpleasant reflections upon the condition of the people on the beacon, especially in the prospect of the tender being driven from her moorings. But, even in such a case, it afforded some consolation that the stability of the fabric was never doubted, and that the boats of the floating light were at no great distance, and ready to render the people on the rock the earliest assistance which the weather would permit. The writer's cabin being in the sternmost part of the ship, which had what sailors term a good entry, or was sharp built, the sea, as before noticed, struck her counter with so much violence that the water, with a rushing noise, continually forced its way up the rudder-case, lifted the valve of the water-closet, and overran the cabin floor. In these circumstances daylight was eagerly looked for, and hailed with delight, as well by those afloat as by the artificers upon the rock.

Friday, 2nd June. In the course of the night the writer held repeated conversations with the officer on watch, who reported that the weather continued much in the same state, and that the barometer still indicated 29.20 inches. At six a.m. the landing-master considered the weather to have somewhat moderated; and, from certain appearances of the sky, he was of opinion that a change for the better would soon take place. He accordingly proposed to attempt a landing at low water, and either get the people off the rock, or at least ascertain what state they were in. At nine a.m. he left the vessel with a boat well-manned, carrying with him a supply of cooked provisions and a tea-kettle full of mulled port wine for the people on the beacon, who had not had any regular diet for about thirty hours, while they were exposed during that period, in a great measure, both to the winds and the sprays of the sea. The boat having succeeded in landing, she returned at eleven a.m. with the artificers, who had got off with considerable difficulty, and who were heartily welcomed by all on board.

Upon inquiry it appeared that three of the stones last laid upon the building had been partially lifted from their beds by the force of the sea, and were now held only by the trenails, and that the cast-iron sheer-crane had again been thrown down and completely broken. With regard to the beacon, the sea at high-water had lifted part of the mortar gallery or lowest floor, and washed away all the lime-casks and other movable articles from it; but the principal parts of this fabric had sustained no damage. On pressing Messrs. Logan and Watt on the

situation of things in the course of the night, Mr. Logan emphatically said: "That the beacon had an *ill-faured*[1] *twist* when the sea broke upon it at high-water, but that they were not very apprehensive of danger." On inquiring as to how they spent the night, it appeared that they had made shift to keep a small fire burning, and by means of some old sails defended themselves pretty well from the sea sprays. 1809

It was particularly mentioned that by the exertions of James Glen, one of the joiners, a number of articles were saved from being washed off the mortar gallery. Glen was also very useful in keeping up the spirits of the forlorn party. In the early part of life he had undergone many curious adventures at sea, which he now recounted somewhat after the manner of the tales of the *Arabian Nights*. When one observed that the beacon was a most comfortless lodging, Glen would presently introduce some of his exploits and hardships, in comparison with which the state of things at the beacon bore an aspect of comfort and happiness. Looking to their slender stock of provisions, and their perilous and uncertain chance of speedy relief, he would launch out into an account of one of his expeditions in the North Sea, when the vessel, being much disabled in a storm, was driven before the wind with the loss of almost all their provisions; and the ship being much infested with rats, the crew hunted these vermin with great eagerness to help their scanty allowance. By such means Glen had the address to make his companions, in some measure, satisfied, or at least passive, with regard to their miserable prospects upon this half-tide rock in the middle of the ocean. This incident is noticed, more particularly, to show the effects of such a happy turn of mind, even under the most distressing and ill-fated circumstances.

Saturday, 17th June.

At eight a.m. the artificers and sailors, forty-five in number, landed on the rock, and after four hours' work seven stones were laid. The remainder of this tide, from the threatening appearance of the weather, was occupied in trenailing and making all things as secure as possible. At twelve noon the rock and building were again overflowed, when the masons and seamen went on board of the tender, but Mr. Watt, with his squad of ten men, remained on the beacon throughout the day. As it blew fresh from the N.W. in the evening, it was found impracticable either to land the building artificers or to take the arti-

[1] Ill-formed—ugly.—[R. L. S.]

1809 ficers off the beacon, and they were accordingly left there all night, but in circumstances very different from those of the 1st of this month. The house, being now in a more complete state, was provided with bedding, and they spent the night pretty well, though they complained of having been much disturbed at the time of high-water by the shaking and tremulous motion of their house and by the plashing noise of the sea upon the mortar gallery. Here James Glen's versatile powers were again at work in cheering up those who seemed to be alarmed, and in securing everything as far as possible. On this occasion he had only to recall to the recollections of some of them the former night which they had spent on the beacon, the wind and sea being then much higher, and their habitation in a far less comfortable state.

The wind still continuing to blow fresh from the N.W., at 5 p.m. the writer caused a signal to be made from the tender for the *Smeaton* and *Patriot* to slip their moorings, when they ran for Lunan Bay, an anchorage on the east side of the Redhead. Those on board of the tender spent but a very rough night, and perhaps slept less soundly than their companions on the beacon, especially as the wind was at N.W., which caused the vessel to ride with her stern towards the Bell Rock; so that, in the event of anything giving way, she could hardly have escaped being stranded upon it.

Sunday, 18th June. The weather having moderated to-day, the wind shifted to the westward. At a quarter-past nine a.m. the artificers landed from the tender and had the pleasure to find their friends who had been left on the rock quite hearty, alleging that the beacon was the preferable quarters of the two.

Saturday, 24th June. Mr. Peter Logan, the foreman builder, and his squad, twenty-one in number, landed this morning at three o'clock, and continued at work four hours and a quarter, and after laying seventeen stones returned to the tender. At six a.m. Mr. Francis Watt and his squad of twelve men landed, and proceeded with their respective operations at the beacon and railways, and were left on the rock during the whole day without the necessity of having any communication with the tender, the kitchen of the beacon-house being now fitted up. It was to-day, also, that Peter Fortune — a most obliging and well-known character in the Lighthouse service — was removed from the tender to the beacon as cook and steward, with a stock of provisions as ample as his limited storeroom would admit.

When as many stones were built as comprised this day's work, the demand for mortar was proportionally increased, and the task of the mortar-makers on these occasions was both laborious and severe. This operation was chiefly performed by John Watt— a strong, active quarrier by profession,— who was a perfect character in his way, and extremely zealous in his department. While the operations of the mortar-makers continued, the forge upon their gallery was not generally in use; but, as the working hours of the builders extended with the height of the building, the forge could not be so long wanted, and then a sad confusion often ensued upon the circumscribed floor of the mortar gallery, as the operations of Watt and his assistants trenched greatly upon those of the smiths. Under these circumstances the boundary of the smiths was much circumscribed, and they were personally annoyed, especially in blowy weather, with the dust of the lime in its powdered state. The mortar-makers, on the other hand, were often not a little distressed with the heat of the fire and the sparks elicited on the anvil, and not unaptly complained that they were placed between the "devil and the deep sea." 1809

Sunday, 25th June.

The work being now about ten feet in height, admitted of a rope-ladder being distended[1] between the beacon and the building. By this "Jacob's Ladder," as the seamen termed it, a communication was kept up with the beacon while the rock was considerably under water. One end of it being furnished with tackle-blocks, was fixed to the beams of the beacon, at the level of the mortar gallery, while the further end was connected with the upper course of the building by means of two Lewis bats which were lifted from course to course as the work advanced. In the same manner a rope furnished with a travelling pulley was distended for the purpose of transporting the mortar-buckets and other light articles between the beacon and the building, which also proved a great conveniency to the work. At this period the rope-ladder and tackle for the mortar had a descent from the beacon to the building; by and by they were on a level, and towards the end of the season, when the solid part had attained its full height, the ascent was from the mortar-gallery to the building.

Friday, 30th June.

The artificers landed on the rock this morning at a quarter-past six, and remained at work five hours. The cooking apparatus being now

[1] This is an incurable illusion of my grandfather's; he always writes "distended" for "extended." — [R. L. S.]

1809 in full operation, all hands had breakfast on the beacon at the usual hour, and remained there throughout the day. The crane upon the building had to be raised to-day from the eighth to the ninth course, an operation which now required all the strength that could be mustered for working the guy-tackles ; for as the top of the crane was at this time about thirty-five feet above the rock, it became much more unmanageable. While the beam was in the act of swinging round from one guy to another, a great strain was suddenly brought upon the opposite tackle, with the end of which the artificers had very improperly neglected to take a turn round some stationary object, which would have given them the complete command of the tackle. Owing to this simple omission, the crane got a preponderancy to one side, and fell upon the building with a terrible crash. The surrounding artificers immediately flew in every direction to get out of its way ; but Michael Wishart, the principal builder, having unluckily stumbled upon one of the uncut trenails, fell upon his back. His body fortunately got between the movable beam and the upright shaft of the crane, and was thus saved ; but his feet got entangled with the wheels of the crane and were severely injured. Wishart, being a robust young man, endured his misfortune with wonderful firmness ; he was laid upon one of the narrow framed beds of the beacon and despatched in a boat to the tender, where the writer was when this accident happened, not a little alarmed on missing the crane from the top of the building, and at the same time seeing a boat rowing towards the vessel with great speed. When the boat came alongside with poor Wishart, stretched upon a bed covered with blankets, a moment of great anxiety followed, which was, however, much relieved when, on stepping into the boat, he was accosted by Wishart, though in a feeble voice, and with an aspect pale as death from excessive bleeding. Directions having been immediately given to the coxswain to apply to Mr. Kennedy at the workyard to procure the best surgical aid, the boat was sent off without delay to Arbroath. The writer then landed at the rock, when the crane was in a very short time got into its place and again put in a working state.

Monday, 3rd July. The writer having come to Arbroath with the yacht, had an opportunity of visiting Michael Wishart, the artificer who had met with so severe an accident at the rock on the 30th ult., and had the pleasure to find him in a state of recovery. From Dr. Stevenson's account, under

whose charge he had been placed, hopes were entertained that amputation would not be necessary, as his patient still kept free of fever or any appearance of mortification ; and Wishart expressed a hope that he might, at least, be ultimately capable of keeping the light at the Bell Rock, as it was not now likely that he would assist further in building the house. 1809

It was remarked to-day, with no small demonstration of joy, that the tide, being neap, did not, for the first time, overflow the building at high-water. Flags were accordingly hoisted on the beacon-house, and crane on the top of the building, which were repeated from the floating light, Lighthouse yacht, tender, *Smeaton, Patriot,* and the two praams. A salute of three guns was also fired from the yacht at high-water, when, all the artificers being collected on the top of the building, three cheers were given in testimony of this important circumstance. A glass of rum was then served out to all hands on the rock and on board of the respective ships. Saturday, 8th July.

Besides laying, boring, trenailing, wedging, and grouting thirty-two stones, several other operations were proceeded with on the rock at low-water, when some of the artificers were employed at the railways, and at high-water at the beacon-house. The seamen having prepared a quantity of tarpaulin, or cloth laid over with successive coats of hot tar, the joiners had just completed the covering of the roof with it. This sort of covering was lighter and more easily managed than sheet-lead in such a situation. As a further defence against the weather the whole exterior of this temporary residence was painted with three coats of white-lead paint. Between the timber framing of the habitable part of the beacon the interstices were to be stuffed with moss, as a light substance that would resist dampness and check sifting winds; the whole interior was then to be lined with green baize cloth, so that both without and within the cabins were to have a very comfortable appearance. Sunday, 16th July.

Although the building artificers generally remained on the rock throughout the day, and the millwrights, joiners, and smiths, while their number was considerable, remained also during the night, yet the tender had hitherto been considered as their night quarters. But the wind having in the course of the day shifted to the N.W., and as the passage to the tender, in the boats, was likely to be attended with difficulty, the whole of the artificers, with Mr. Logan, the foreman,

1809 preferred remaining all night on the beacon, which had of late become the solitary abode of George Forsyth, a jobbing upholsterer, who had been employed in lining the beacon-house with cloth and in fitting up the bedding. Forsyth was a tall, thin, and rather loose-made man, who had an utter aversion at climbing upon the trap-ladders of the beacon, but especially at the process of boating, and the motion of the ship, which he said "was death itself." He therefore pertinaciously insisted with the landing-master in being left upon the beacon, with a small black dog as his only companion. The writer, however, felt some delicacy in leaving a single individual upon the rock, who must have been so very helpless in case of accident. This fabric had, from the beginning, been rather intended by the writer to guard against accident from the loss or damage of a boat, and as a place for making mortar, a smith's shop, and a store for tools during the working months, than as permanent quarters; nor was it at all meant to be possessed until the joiner-work was completely finished, and his own cabin, and that for the foreman, in readiness, when it was still to be left to the choice of the artificers to occupy the tender or the beacon. He, however, considered Forsyth's partiality and confidence in the latter as rather a fortunate occurrence.

Wednesday, 19th July. The whole of the artificers, twenty-three in number, now removed of their own accord from the tender, to lodge in the beacon, together with Peter Fortune, a person singularly adapted for a residence of this kind, both from the urbanity of his manners and the versatility of his talents. Fortune, in his person, was of small stature, and rather corpulent. Besides being a good Scots cook, he had acted both as groom and house-servant; he had been a soldier, a sutler, a writer's clerk, and an apothecary, from which he possessed the art of writing and suggesting recipes, and had hence, also, perhaps, acquired a turn for making collections in natural history. But in his practice in surgery on the Bell Rock, for which he received an annual fee of three guineas, he is supposed to have been rather partial to the use of the lancet. In short, Peter was the *factotum* of the beacon-house, where he ostensibly acted in the several capacities of cook, steward, surgeon, and barber, and kept a statement of the rations or expenditure of the provisions with the strictest integrity.

In the present important state of the building, when it had just attained the height of sixteen feet, and the upper courses, and especially

the imperfect one, were in the wash of the heaviest seas, an express boat arrived at the rock with a letter from Mr. Kennedy, of the work-yard, stating that in consequence of the intended expedition to Walcheren, an embargo had been laid on shipping at all the ports of Great Britain: that both the *Smeaton* and *Patriot* were detained at Arbroath, and that but for the proper view which Mr. Ramsey, the port-officer, had taken of his orders, neither the express boat nor one which had been sent with provisions and necessaries for the floating light would have been permitted to leave the harbour. The writer set off without delay for Arbroath, and on landing used every possible means with the official people, but their orders were deemed so peremptory that even boats were not permitted to sail from any port upon the coast. In the meantime, the collector of the Customs at Montrose applied to the Board at Edinburgh, but could, of himself, grant no relief to the Bell Rock shipping. 1809

At this critical period Mr. Adam Duff, then Sheriff of Forfarshire, now of the county of Edinburgh, and *ex officio* one of the Commissioners of the Northern Lighthouses, happened to be at Arbroath. Mr. Duff took an immediate interest in representing the circumstances of the case to the Board of Customs at Edinburgh. But such were the doubts entertained on the subject that, on having previously received the appeal from the collector at Montrose, the case had been submitted to the consideration of the Lords of the Treasury, whose decision was now waited for.

In this state of things the writer felt particularly desirous to get the thirteenth course finished, that the building might be in a more secure state in the event of bad weather. An opportunity was therefore embraced on the 25th, in sailing with provisions for the floating light, to carry the necessary stones to the rock for this purpose, which were landed and built on the 26th and 27th. But so closely was the watch kept up that a Custom-house officer was always placed on board of the *Smeaton* and *Patriot* while they were afloat, till the embargo was especially removed from the lighthouse vessels. The artificers at the Bell Rock had been reduced to fifteen, who were regularly supplied with provisions, along with the crew of the floating light, mainly through the port officer's liberal interpretation of his orders.

There being a considerable swell and breach of sea upon the rock yesterday, the stones could not be got landed till the day following, Tuesday, 1st Aug.

1809 when the wind shifted to the southward and the weather improved. But to-day no less than seventy-eight blocks of stone were landed, of which forty were built, which completed the fourteenth and part of the fifteenth courses. The number of workmen now resident in the beacon-house were augmented to twenty-four, including the landing-master's crew from the tender and the boat's crew from the floating light, who assisted at landing the stones. Those daily at work upon the rock at this period amounted to forty-six. A cabin had been laid out for the writer on the beacon, but his apartment had been the last which was finished, and he had not yet taken possession of it; for though he generally spent the greater part of the day, at this time, upon the rock, yet he always slept on board of the tender.

Friday, 11th Aug. The wind was at S.E. on the 11th, and there was so very heavy a swell of sea upon the rock that no boat could approach it.

Saturday, 12th Aug. The gale still continuing from the S.E., the sea broke with great violence both upon the building and the beacon. The former being twenty-three feet in height, the upper part of the crane erected on it having been lifted from course to course as the building advanced, was now about thirty-six feet above the rock. From observations made on the rise of the sea by this crane, the artificers were enabled to estimate its height to be about fifty feet above the rock, while the sprays fell with a most alarming noise upon their cabins. At low-water, in the evening, a signal was made from the beacon, at the earnest desire of some of the artificers, for the boats to come to the rock; and although this could not be effected without considerable hazard, it was, however, accomplished, when twelve of their number, being much afraid, applied to the foreman to be relieved, and went on board of the tender. But the remaining fourteen continued on the rock, with Mr. Peter Logan, the foreman builder. Although this rule of allowing an option to every man either to remain on the rock or return to the tender was strictly adhered to, yet, as it would have been extremely inconvenient to have had the men parcelled out in this manner, it became necessary to embrace the first opportunity of sending those who had left the beacon to the workyard, with as little appearance of intention as possible, lest it should hurt their feelings, or prevent others from acting according to their wishes, either in landing on the rock or remaining on the beacon.

The wind had fortunately shifted to the S.W. this morning, and though a considerable breach was still upon the rock, yet the landing-master's crew were enabled to get one praam-boat, lightly loaded with five-stones, brought in safety to the western creek; these stones were immediately laid by the artificers, who gladly embraced the return of good weather to proceed with their operations. The writer had this day taken possession of his cabin in the beacon-house. It was small, but commodious, and was found particularly convenient in coarse and blowing weather, instead of being obliged to make a passage to the tender in an open boat at all times, both during the day and the night, which was often attended with much difficulty and danger. 1809 Tuesday, 15th Aug.

For some days past the weather had been occasionally so thick and foggy that no small difficulty was experienced in going even between the rock and the tender, though quite at hand. But the floating light's boat lost her way so far in returning on board that the first land she made, after rowing all night, was Fifeness, a distance of about fourteen miles. The weather having cleared in the morning, the crew stood off again for the floating light, and got on board in a half-famished and much exhausted state, having been constantly rowing for about sixteen hours. Saturday, 19th Aug.

The weather being very favourable to-day, fifty-three stones were landed, and the builders were not a little gratified in having built the twenty-second course, consisting of fifty-one stones, being the first course which had been completed in one day. This, as a matter of course, produced three hearty cheers. At twelve noon prayers were read for the first time on the Bell Rock; those present, counting thirty, were crowded into the upper apartment of the beacon, where the writer took a central position, while two of the artificers, joining hands, supported the Bible. Sunday, 20th Aug.

To-day the artificers laid forty-five stones, which completed the twenty-fourth course, reckoning above the first entire one, and the twenty-sixth above the rock. This finished the solid part of the building, and terminated the height of the outward casing of granite, which is thirty-one feet six inches above the rock or site of the foundation-stone, and about seventeen feet above high-water of spring-tides. Being a particular crisis in the progress of the lighthouse, the landing and laying of the last stone for the season was observed with the usual ceremonies. Friday, 25th Aug.

1809 From observations often made by the writer, in so far as such can be ascertained, it appears that no wave in the open seas, in an unbroken state, rises more than from seven to nine feet above the general surface of the ocean. The Bell Rock Lighthouse may therefore now be considered at from eight to ten feet above the height of the waves; and, although the sprays and heavy seas have often been observed, in the present state of the building, to rise to the height of fifty feet, and fall with a tremendous noise on the beacon-house, yet such seas were not likely to make any impression on a mass of solid masonry, containing about 1400 tons.

Wednesday, 30th Aug. The whole of the artificers left the rock at mid-day, when the tender made sail for Arbroath, which she reached about six p.m. The vessel being decorated with colours, and having fired a salute of three guns on approaching the harbour, the workyard artificers, with a multitude of people, assembled at the harbour, when mutual cheering and congratulations took place between those afloat and those on the quays. The tender had now, with little exception, been six months on the station at the Bell Rock, and during the last four months few of the squad of builders had been ashore. In particular, Mr. Peter Logan, the foreman, and Mr. Robert Selkirk, principal builder, had never once left the rock. The artificers, having made good wages during their stay, like seamen upon a return voyage, were extremely happy, and spent the evening with much innocent mirth and jollity.

In reflecting upon the state of the matters at the Bell Rock during the working months, when the writer was much with the artificers, nothing can equal the happy manner in which these excellent workmen spent their time. They always went from Arbroath to their arduous task cheering; and they generally returned in the same hearty state. While at the rock, between the tides, they amused themselves in reading, fishing, music, playing cards, draughts, etc., or in sporting with one another. In the workyard at Arbroath the young men were almost, without exception, employed in the evening at school, in writing and arithmetic, and not a few were learning architectural drawing, for which they had every convenience and facility, and were, in a very obliging manner, assisted in their studies by Mr. David Logan, clerk of the works. It therefore affords the most pleasing reflections to look back upon the pursuits of about sixty individuals who for years conducted themselves, on all occasions, in a sober and rational manner.

# THE BUILDING OF THE BELL ROCK

## IV

## OPERATIONS OF 1810

THE wind had shifted to-day to W.N.W., when the writer, with considerable difficulty, was enabled to land upon the rock for the first time this season, at ten a.m. Upon examining the state of the building, and apparatus in general, he had the satisfaction to find everything in good order. The mortar in all the joints was perfectly entire. The building, now thirty feet in height, was thickly coated with *fuci* to the height of about fifteen feet, calculating from the rock: on the eastern side, indeed, the growth of seaweed was observable to the full height of thirty feet, and even on the top or upper bed of the last-laid course, especially towards the eastern side, it had germinated, so as to render walking upon it somewhat difficult.

1810 Thursday, 10th May.

The beacon-house was in a perfectly sound state, and apparently just as it had been left in the month of November. But the tides being neap, the lower parts, particularly where the beams rested on the rock, could not now be seen. The floor of the mortar gallery having been already laid down by Mr. Watt and his men on a former visit, was merely soaked with the sprays; but the joisting-beams which supported it had, in the course of the winter, been covered with a fine downy conferva produced by the range of the sea. They were also a good deal whitened with the mute of the cormorant and other sea-fowls, which had roosted upon the beacon in winter. Upon ascending to the apartments, it was found that the motion of the sea had thrown open the door of the cook-house: this was only shut with a single latch, that in case of shipwreck at the Bell Rock the mariner might find ready access to the shelter of this forlorn habitation, where a supply of provisions was kept; and being within two miles and a half of the floating light, a signal could readily be observed, when a boat might be sent to his relief as soon as the weather permitted. An arrangement for this purpose formed one of the instructions on board of the floating light, but happily no instance occurred for putting it in practice. The hearth or fireplace of the cook-house was built of brick in as secure a manner as possible, to prevent accident from fire; but some of the plaster-work had shaken loose, from its damp state, and the tremulous motion of the beacon in stormy weather. The writer

1810 next ascended to the floor which was occupied by the cabins of himself and his assistants, which were in tolerably good order, having only a damp and musty smell. The barrack for the artificers, over all, was next visited; it had now a very dreary and deserted appearance when its former thronged state was recollected. In some parts the water had come through the boarding, and had discoloured the lining of green cloth, but it was, nevertheless, in a good habitable condition. While the seamen were employed in landing a stock of provisions, a few of the artificers set to work with great eagerness to sweep and clean the several apartments. The exterior of the beacon was, in the meantime, examined, and found in perfect order. The painting, though it had a somewhat blanched appearance, adhered firmly both on the sides and roof, and only two or three panes of glass were broken in the cupola, which had either been blown out by the force of the wind or perhaps broken by sea-fowl.

Having on this occasion continued upon the building and beacon a considerable time after the tide had begun to flow, the artificers were occupied in removing the forge from the top of the building, to which the gangway or wooden bridge gave great facility; and, although it stretched or had a span of forty-two feet, its construction was extremely simple, while the roadway was perfectly firm and steady. In returning from this visit to the rock every one was pretty well soused in spray before reaching the tender at two o'clock p.m., where things awaited the landing party in as comfortable a way as such a situation would admit.

Friday, 11th May. The wind was still easterly, accompanied with rather a heavy swell of sea for the operations in hand. A landing was, however, made this morning, when the artificers were immediately employed in scraping the seaweed off the upper course of the building, in order to apply the moulds of the first course of the staircase, that the joggle-holes might be marked off in the upper course of the solid. This was also necessary previously to the writer's fixing the position of the entrance-door, which was regulated chiefly by the appearance of the growth of the seaweed on the building, indicating the direction of the heaviest seas, on the opposite side of which the door was placed. The landing-master's crew succeeded in towing into the creek on the western side of the rock the praam-boat with the balance-crane, which had now been on board of the praam for five days. The several pieces of this

machine, having been conveyed along the railways upon the waggons to a position immediately under the bridge, were elevated to its level, or thirty feet above the rock, in the following manner. A chain-tackle was suspended over a pulley from the cross-beam connecting the tops of the kingposts of the bridge, which was worked by a winch-machine with wheel, pinion, and barrel, round which last the chain was wound. This apparatus was placed on the beacon side of the bridge, at the distance of about twelve feet from the cross-beam and pulley in the middle of the bridge. Immediately under the cross-beam a hatch was formed in the roadway of the bridge, measuring seven feet in length and five feet in breadth, made to shut with folding boards like a double door, through which stones and other articles were raised; the folding doors were then let down, and the stone or load was gently lowered upon a waggon which was wheeled on railway trucks towards the lighthouse. In this manner the several castings of the balance-crane were got up to the top of the solid of the building. 1810

The several apartments of the beacon-house having been cleaned out and supplied with bedding, a sufficient stock of provisions was put into the store, when Peter Fortune, formerly noticed, lighted his fire in the beacon for the first time this season. Sixteen artificers at the same time mounted to their barrack-room, and the foremen of the works also took possession of their cabin, all heartily rejoiced at getting rid of the trouble of boating and the sickly motion of the tender.

**Saturday, 12th May.** The wind was at E.N.E., blowing so fresh, and accompanied with so much sea, that no stones could be landed to-day. The people on the rock, however, were busily employed in screwing together the balance-crane, cutting out the joggle-holes in the upper course, and preparing all things for commencing the building operations.

**Sunday, 13th May.** The weather still continues boisterous, although the barometer has all the while stood at about 30 inches. Towards evening the wind blew so fresh at E. by S. that the boats both of the *Smeaton* and tender were obliged to be hoisted in, and it was feared that the *Smeaton* would have to slip her moorings. The people on the rock were seen busily employed, and had the balance-crane apparently ready for use, but no communication could be had with them to-day.

**Monday, 14th May.** The wind continued to blow so fresh, and the *Smeaton* rode so heavily with her cargo, that at noon a signal was made for her getting under weigh, when she stood towards Arbroath; and on board of the

1810 tender we are still without any communication with the people on the rock, where the sea was seen breaking over the top of the building in great sprays, and raging with much agitation among the beams of the beacon.

Thursday, 17th May. The wind, in the course of the day, had shifted from north to west; the sea being also considerably less, a boat landed on the rock at six p.m., for the first time since the 11th, with the provisions and water brought off by the *Patriot*. The inhabitants of the beacon were all well, but tired above measure for want of employment, as the balance-crane and apparatus was all in readiness. Under these circumstances they felt no less desirous of the return of good weather than those afloat, who were continually tossed with the agitation of the sea. The writer, in particular, felt himself almost as much fatigued and worn-out as he had been at any period since the commencement of the work. The very backward state of the weather at so advanced a period of the season unavoidably created some alarm lest he should be overtaken with bad weather at a late period of the season, with the building operations in an unfinished state. These apprehensions were, no doubt, rather increased by the inconveniences of his situation afloat, as the tender rolled and pitched excessively at times. This being also his first off-set for the season, every bone of his body felt sore with preserving a sitting posture while he endeavoured to pass away the time in reading; as for writing, it was wholly impracticable. He had several times entertained thoughts of leaving the station for a few days and going into Arbroath with the tender till the weather should improve; but as the artificers had been landed on the rock he was averse to this at the commencement of the season, knowing also that he would be equally uneasy in every situation till the first cargo was landed: and he therefore resolved to continue at his post until this should be effected.

Friday, 18th May. The wind being now N.W., the sea was considerably run down, and this morning at five o'clock the landing-master's crew, thirteen in number, left the tender; and having now no detention with the landing of artificers, they proceeded to unmoor the *Hedderwick* praam-boat, and towed her alongside of the *Smeaton:* and in the course of the day twenty-three blocks of stone, three casks of pozzolano, three of sand, three of lime, and one of Roman cement, together with three bundles of trenails and three of wedges, were all landed on the rock and raised

to the top of the building by means of the tackle suspended from the cross-beam on the middle of the bridge. The stones were then moved along the bridge on the waggon to the building within reach of the balance-crane, with which they were laid in their respective places on the building. The masons immediately thereafter proceeded to bore the trenail-holes into the course below, and otherwise to complete the one in hand. When the first stone was to be suspended by the balance-crane, the bell on the beacon was rung, and all the artificers and seamen were collected on the building. Three hearty cheers were given while it was lowered into its place, and the steward served round a glass of rum, when success was drunk to the further progress of the building. 1810

The wind was southerly to-day, but there was much less sea than yesterday, and the landing-master's crew were enabled to discharge and land twenty-three pieces of stone and other articles for the work. The artificers had completed the laying of the twenty-seventh or first course of the staircase this morning, and in the evening they finished the boring, trenailing, wedging, and grouting it with mortar. At twelve o'clock noon the beacon-house bell was rung, and all hands were collected on the top of the building, where prayers were read for the first time on the lighthouse, which forcibly struck every one, and had, upon the whole, a very impressive effect. Sunday, 20th May.

From the hazardous situation of the beacon-house with regard to fire, being composed wholly of timber, there was no small risk from accident; and on this account one of the most steady of the artificers was appointed to see that the fire of the cooking-house, and the lights in general, were carefully extinguished at stated hours.

This being the birthday of our much-revered Sovereign King George III., now in the fiftieth year of his reign, the shipping of the Lighthouse service were this morning decorated with colours according to the taste of their respective captains. Flags were also hoisted upon the beacon-house and balance-crane on the top of the building. At twelve noon a salute was fired from the tender, when the King's health was drunk, with all the honours, both on the rock and on board of the shipping. Monday, 4th June.

As the lighthouse advanced in height, the cubical contents of the stones were less, but they had to be raised to a greater height; and the walls, being thinner, were less commodious for the necessary machin- Tuesday, 5th June.

1810 ery and the artificers employed, which considerably retarded the work. Inconvenience was also occasionally experienced from the men dropping their coats, hats, mallets, and other tools, at high-water, which were carried away by the tide; and the danger to the people themselves was now greatly increased. Had any of them fallen from the beacon or building at high-water, while the landing-master's crew were generally engaged with the craft at a distance, it must have rendered the accident doubly painful to those on the rock, who at this time had no boat, and consequently no means of rendering immediate and prompt assistance. In such cases it would have been too late to have got a boat by signal from the tender. A small boat, which could be lowered at pleasure, was therefore suspended by a pair of davits projected from the cook-house, the keel being about thirty feet from the rock. This boat, with its tackle, was put under the charge of James Glen, of whose exertions on the beacon mention has already been made, and who, having in early life been a seaman, was also very expert in the management of a boat. A life-buoy was likewise suspended from the bridge, to which a coil of line two hundred fathoms in length was attached, which could be let out to a person falling into the water, or to the people in the boat, should they not be able to work her with the oars.

Thursday, 7th June. To-day twelve stones were landed on the rock, being the remainder of the *Patriot's* cargo; and the artificers built the thirty-ninth course, consisting of fourteen stones. The Bell Rock works had now a very busy appearance, as the lighthouse was daily getting more into form. Besides the artificers and their cook, the writer and his servant were also lodged on the beacon, counting in all twenty-nine; and at low-water the landing-master's crew, consisting of from twelve to fifteen seamen, were employed in transporting the building materials, working the landing apparatus on the rock, and dragging the stone waggons along the railways.

Friday, 8th June. In the course of this day the weather varied much. In the morning it was calm, in the middle part of the day there were light airs of wind from the south, and in the evening fresh breezes from the east. The barometer in the writer's cabin in the beacon-house oscillated from 30 inches to 30.42, and the weather was extremely pleasant. This, in any situation, forms one of the chief comforts of life; but, as may

easily be conceived, it was doubly so to people stuck, as it were, upon a pinnacle in the middle of the ocean. 1810

One of the praam-boats had been brought to the rock with eleven stones, notwithstanding the perplexity which attended the getting of those formerly landed taken up to the building. Mr. Peter Logan, the foreman builder, interposed, and prevented this cargo from being delivered; but the landing-master's crew were exceedingly averse to this arrangement, from an idea that "ill luck" would in future attend the praam, her cargo, and those who navigated her, from thus reversing her voyage. It may be noticed that this was the first instance of a praam-boat having been sent from the Bell Rock with any part of her cargo on board, and was considered so uncommon an occurrence that it became a topic of conversation among the seamen and artificers. Sunday, 10th June.

To-day the stones formerly sent from the rock were safely landed, notwithstanding the augury of the seamen, in consequence of their being sent away two days before. Tuesday, 12th June.

To-day twenty-seven stones and eleven joggle-pieces were landed, part of which consisted of the forty-seventh course, forming the store-room floor. The builders were at work this morning by four o'clock, in the hopes of being able to accomplish the laying of the eighteen stones of this course. But at eight o'clock in the evening they had still two to lay, and as the stones of this course were very unwieldy, being six feet in length, they required much precaution and care both in lifting and laying them. It was only on the writer's suggestion to Mr. Logan that the artificers were induced to leave off, as they had intended to complete this floor before going to bed. The two remaining stones were, however, laid in their places without mortar when the bell on the beacon was rung, and, all hands being collected on the top of the building, three hearty cheers were given on covering the first apartment. The steward then served out a dram to each, when the whole retired to their barrack much fatigued, but with the anticipation of the most perfect repose even in the "hurricane-house," amidst the dashing seas on the Bell Rock. Thursday, 14th June.

While the workmen were at breakfast and dinner it was the writer's usual practice to spend his time on the walls of the building, which, notwithstanding the narrowness of the track, nevertheless formed his principal walk when the rock was under water. But this afternoon he

1810 had his writing-desk set upon the storeroom floor, when he wrote to Mrs. Stevenson—certainly the first letter dated from the Bell Rock *Lighthouse*—giving a detail of the fortunate progress of the work, with an assurance that the lighthouse would soon be completed at the rate at which it now proceeded; and, the *Patriot* having sailed for Arbroath in the evening, he felt no small degree of pleasure in despatching this communication to his family.

The weather still continuing favourable for the operations at the rock, the work proceeded with much energy, through the exertions both of the seamen and artificers. For the more speedy and effectual working of the several tackles in raising the materials as the building advanced in height, and there being a great extent of railway to attend to, which required constant repairs, two additional millwrights were added to the complement on the rock, which, including the writer, now counted thirty-one in all. So crowded was the men's barrack that the beds were ranged five tier in height, allowing only about one foot eight inches for each bed. The artificers commenced this morning at five o'clock, and, in the course of the day, they laid the forty-eighth and forty-ninth courses, consisting each of sixteen blocks. From the favourable state of the weather, and the regular manner in which the work now proceeded, the artificers had generally from four to seven extra hours' work, which, including their stated wages of 3s. 4d., yielded them from 5s. 4d. to about 6s. 10d. per day, besides their board; even the postage of their letters was paid while they were at the Bell Rock. In these advantages the foremen also shared, having about double the pay and amount of premiums of the artificers. The seamen being less out of their element in the Bell Rock operations than the landsmen, their premiums consisted in a slump sum payable at the end of the season, which extended from three to ten guineas.

As the laying of the floors was somewhat tedious, the landing-master and his crew had got considerably beforehand with the building artificers in bringing materials faster to the rock than they could be built. The seamen having, therefore, some spare time, were occasionally employed during fine weather in dredging or grappling for the several mushroom anchors and mooring-chains which had been lost in the vicinity of the Bell Rock during the progress of the work by the breaking loose and drifting of the floating buoys. To encourage their exertions in this search, five guineas were offered as a premium for each

set they should find; and, after much patient application, they succeeded to-day in hooking one of these lost anchors with its chain. 1810

It was a general remark at the Bell Rock, as before noticed, that fish were never plenty in its neighbourhood excepting in good weather. Indeed, the seamen used to speculate about the state of the weather from their success in fishing. When the fish disappeared at the rock, it was considered a sure indication that a gale was not far off, as the fish seemed to seek shelter in deeper water from the roughness of the sea during these changes in the weather. At this time the rock, at high water, was completely covered with podlies, or the fry of the coal-fish, about six or eight inches in length. The artificers sometimes occupied half an hour after breakfast and dinner in catching these little fishes, but were more frequently supplied from the boats of the tender.

Saturday, 16th June.

The landing-master having this day discharged the *Smeaton* and loaded the *Hedderwick* and *Dickie* praam-boats with nineteen stones, they were towed to their respective moorings, when Captain Wilson, in consequence of the heavy swell of sea, came in his boat to the beacon-house to consult with the writer as to the propriety of venturing the loaded praam-boats with their cargoes to the rock while so much sea was running. After some dubiety expressed on the subject, in which the ardent mind of the landing-master suggested many arguments in favour of his being able to convey the praams in perfect safety, it was acceded to. In bad weather, and especially on occasions of difficulty like the present, Mr. Wilson, who was an extremely active seaman, measuring about five feet three inches in height, of a robust habit, generally dressed himself in what he called a *monkey jacket*, made of thick duffle cloth, with a pair of Dutchman's petticoat trousers, reaching only to his knees, where they were met with a pair of long water-tight boots; with this dress, his glazed hat, and his small brass speaking-trumpet in his hand, he bade defiance to the weather. When he made his appearance in this most suitable attire for the service, his crew seemed to possess additional life, never failing to use their utmost exertions when the captain put on his *storm rigging*. They had this morning commenced loading the praam-boats at four o'clock, and proceeded to tow them into the eastern landing-place, which was accomplished with much dexterity, though not without the risk of being thrown, by the force of the sea, on certain projecting ledges of the rock. In such a case the loss even of a single stone

1810 would have greatly retarded the work. For the greater safety in entering the creek, it was necessary to put out several warps and guy-ropes to guide the boats into its narrow and intricate entrance; and it frequently happened that the sea made a clean breach over the praams, which not only washed their decks, but completely drenched the crew in water.

Sunday, 17th June. It was fortunate, in the present state of the weather, that the fiftieth course was in a sheltered spot, within the reach of the tackle of the winch-machine upon the bridge; a few stones were stowed upon the bridge itself, and the remainder upon the building, which kept the artificers at work. The stowing of the materials upon the rock was the department of Alexander Brebner, mason, who spared no pains in attending to the safety of the stones, and who, in the present state of the work, when the stones were landed faster than could be built, generally worked till the water rose to his middle. At one o'clock to-day the bell rung for prayers, and all hands were collected into the upper barrack-room of the beacon-house, when the usual service was performed.

The wind blew very hard in the course of last night from N.E., and to-day the sea ran so high that no boat could approach the rock. During the dinner-hour, when the writer was going to the top of the building as usual, but just as he had entered the door and was about to ascend the ladder, a great noise was heard overhead, and in an instant he was soused in water from a sea which had most unexpectedly come over the walls, though now about fifty-eight feet in height. On making his retreat, he found himself completely whitened by the lime, which had mixed with the water while dashing down through the different floors; and, as nearly as he could guess, a quantity equal to about a hogshead had come over the walls, and now streamed out at the door. After having shifted himself, he again sat down in his cabin, the sea continuing to run so high that the builders did not resume their operations on the walls this afternoon. The incident just noticed did not create more surprise in the mind of the writer than the sublime appearance of the waves as they rolled majestically over the rock. This scene he greatly enjoyed while sitting at his cabin window; each wave approached the beacon like a vast scroll unfolding; and in passing discharged a quantity of air, which he not only distinctly felt, but was even sufficient to lift the leaves of a book which lay before him. These

waves might be ten or twelve feet in height, and about 250 feet in length, their smaller end being towards the north, where the water was deep, and they were opened or cut through by the interposition of the building and beacon. The gradual manner in which the sea, upon these occasions, is observed to become calm or to subside, is a very remarkable feature of this phenomenon. For example, when a gale is succeeded by a calm, every third or fourth wave forms one of these great seas, which occur in spaces of from three to five minutes, as noted by the writer's watch; but in the course of the next tide they become less frequent, and take off so as to occur only in ten or fifteen minutes; and, singular enough, at the third tide after such gales, the writer has remarked that only one or two of these great waves appear in the course of the whole tide. 1810

Tuesday, 19th June.

The 19th was a very unpleasant and disagreeable day, both for the seamen and artificers, as it rained throughout with little intermission from four a.m. till eleven p.m., accompanied with thunder and lightning, during which period the work nevertheless continued unremittingly, and the builders laid the fifty-first and fifty-second courses. This state of weather was no less severe upon the mortar-makers, who required to temper or prepare the mortar of a thicker or thinner consistency, in some measure, according to the state of the weather. From the elevated position of the building the mortar gallery on the beacon was now much lower, and the lime-buckets were made to traverse upon a rope distended between it and the building. On occasions like the present, however, there was often a difference of opinion between the builders and the mortar-makers. John Watt, who had the principal charge of the mortar, was a most active worker, but, being somewhat of an irascible temper, the builders occasionally amused themselves at his expense: for while he was eagerly at work with his large iron-shod pestle in the mortar-tub, they often sent down contradictory orders, some crying, "Make it a little stiffer, or thicker, John," while others called out to make it "thinner," to which he generally returned very speedy and sharp replies, so that these conversations at times were rather amusing.

During wet weather the situation of the artificers on the top of the building was extremely disagreeable; for although their work did not require great exertion, yet, as each man had his particular part to perform, either in working the crane or in laying the stones, it required

1810 the closest application and attention, not only on the part of Mr. Peter Logan, the foreman, who was constantly on the walls, but also of the chief workmen. Robert Selkirk, the principal builder, for example, had every stone to lay in its place. David Cumming, a mason, had the charge of working the tackle of the balance-weight, and James Scott, also a mason, took charge of the purchase with which the stones were laid; while the pointing the joints of the walls with cement was intrusted to William Reid and William Kennedy, who stood upon a scaffold suspended over the walls in rather a frightful manner. The least act of carelessness or inattention on the part of any of these men might have been fatal, not only to themselves, but also to the surrounding workmen, especially if any accident had happened to the crane itself, while the material damage or loss of a single stone would have put an entire stop to the operations until another could have been brought from Arbroath. The artificers, having wrought seven and a half hours of extra time to-day, had 3s. 9d. of extra pay, while the foremen had 7s. 6d. over and above their stated pay and board. Although, therefore, the work was both hazardous and fatiguing, yet, the encouragement being considerable, they were always very cheerful, and perfectly reconciled to the confinement and other disadvantages of the place.

During fine weather, and while the nights were short, the duty on board of the floating light was literally nothing but a waiting on, and therefore one of her boats, with a crew of five men, daily attended the rock, but always returned to the vessel at night. The carpenter, however, was one of those who was left on board of the ship, as he also acted in the capacity of assistant lightkeeper, being, besides, a person who was apt to feel discontent and to be averse to changing his quarters, especially to work with the millwrights and joiners at the rock, who often, for hours together, wrought knee-deep, and not unfrequently up to the middle in water. Mr. Watt having about this time made a requisition for another hand, the carpenter was ordered to attend the rock in the floating light's boat. This he did with great reluctance, and found so much fault that he soon got into discredit with his messmates. On this occasion he left the Lighthouse service, and went as a sailor in a vessel bound for America — a step which, it is believed, he soon regretted, as, in the course of things, he would, in all probability, have accompanied Mr. John Reid, the principal lightkeeper of the floating light, to the Bell Rock Lighthouse as his princi-

pal assistant. The writer had a wish to be of service to this man, as he was one of those who came off to the floating light in the month of September 1807, while she was riding at single anchor after the severe gale of the 7th, at a time when it was hardly possible to make up this vessel's crew; but the crossness of his manner prevented his reaping the benefit of such intentions. 1810

The building operations had for some time proceeded more slowly, from the higher parts of the lighthouse requiring much longer time than an equal tonnage of the lower courses. The duty of the landing-master's crew had, upon the whole, been easy of late; for though the work was occasionally irregular, yet the stones being lighter, they were more speedily lifted from the hold of the stone vessel to the deck of the praam-boat, and again to the waggons on the railway, after which they came properly under the charge of the foreman builder. It is, however, a strange, though not an uncommon, feature in the human character, that, when people have least to complain of they are most apt to become dissatisfied, as was now the case with the seamen employed in the Bell Rock service about their rations of beer. Indeed, ever since the carpenter of the floating light, formerly noticed, had been brought to the rock, expressions of discontent had been manifested upon various occasions. This being represented to the writer, he sent for Captain Wilson, the landing-master, and Mr. Taylor, commander of the tender, with whom he talked over the subject. They stated that they considered the daily allowance of the seamen in every respect ample, and that, the work being now much lighter than formerly, they had no just ground for complaint; Mr. Taylor adding that, if those who now complained "were even to be fed upon soft bread and turkeys, they would not think themselves right." At twelve noon the work of the landing-master's crew was completed for the day; but at four o'clock, while the rock was under water, those on the beacon were surprised by the arrival of a boat from the tender without any signal having been made from the beacon. It brought the following note to the writer from the landing-master's crew:— Friday, 22nd June.

*"Sir Joseph Banks Tender.*

"Sir,—We are informed by our masters that our allowance is to be as before, and it is not sufficient to serve us, for we have been at work since four o'clock this morning, and we have come on board to dinner,

1810 and there is no beer for us before to-morrow morning, to which a sufficient answer is required before we go from the beacon; and we are, Sir, your most obedient servants."

On reading this, the writer returned a verbal message, intimating that an answer would be sent on board of the tender, at the same time ordering the boat instantly to quit the beacon. He then addressed the following note to the landing-master:—

"*Beacon-house, 22nd June,* 1810,
*Five o'clock p.m.*

"SIR,—I have just now received a letter purporting to be from the landing-master's crew and seamen on board of the *Sir Joseph Banks,* though without either date or signature; in answer to which I enclose a statement of the daily allowance of provisions for the seamen in this service, which you will post up in the ship's galley, and at seven o'clock this evening I will come on board to inquire into this unexpected and most unnecessary demand for an additional allowance of beer. In the enclosed you will not find any alteration from the original statement, fixed in the galley at the beginning of the season. I have, however, judged this mode of giving your people an answer preferable to that of conversing with them on the beacon.—I am, Sir, your most obedient servant.

"ROBERT STEVENSON.

"TO CAPTAIN WILSON."

"*Beacon House, 22nd June* 1810.—Schedule of the daily allowance of provisions to be served out on board of the *Sir Joseph Banks* tender: "1½ lb. beef; 1 lb. bread; 8 oz. oat meal; 2 oz. barley; 2 oz. butter; 3 quarts beer; vegetables and salt no stated allowance. When the seamen are employed in unloading the *Smeaton* and *Patriot,* a draught of beer is, as formerly, to be allowed from the stock of these vessels. Further, in wet and stormy weather, when the work commences very early in the morning, or continues till a late hour at night, a glass of spirits will also be served out to the crew as heretofore, on the requisition of the landing-master."

"ROBERT STEVENSON."

On writing this letter and schedule, a signal was made on the beacon for the landing-master's boat, which immediately came to the rock,

and the schedule was afterwards stuck up in the tender's galley. 1810
When sufficient time had been allowed to the crew to consider of their conduct, a second signal was made for a boat, and at seven o'clock the writer left the Bell Rock, after a residence of four successive weeks in the beacon-house. The first thing which occupied his attention on board of the tender was to look round upon the lighthouse, which he saw, with some degree of emotion and surprise, now vying in height with the beacon-house; for although he had often viewed it from the extremity of the western railway on the rock, yet the scene, upon the whole, seemed far more interesting from the tender's moorings at the distance of about half a mile.

The *Smeaton* having just arrived at her moorings with a cargo, a signal was made for Captain Pool to come on board of the tender, that he might be at hand to remove from the service any of those who might persist in their discontented conduct. One of the two principal leaders in this affair, the master of one of the praam-boats, who had also steered the boat which brought the letter to the beacon, was first called upon deck, and asked if he had read the statement fixed up in the galley this afternoon, and whether he was satisfied with it. He replied that he had read the paper, but was not satisfied, as it held out no alteration on the allowance, on which he was immediately ordered into the *Smeaton's* boat. The next man called had but lately entered the service, and, being also interrogated as to his resolution, he declared himself to be of the same mind with the praam-master, and was also forthwith ordered into the boat. The writer, without calling any more of the seamen, went forward to the gangway, where they were collected and listening to what was passing upon deck. He addressed them at the hatchway, and stated that two of their companions had just been dismissed the service and sent on board of the *Smeaton* to be conveyed to Arbroath. He therefore wished each man to consider for himself how far it would be proper, by any unreasonableness of conduct, to place themselves in a similar situation, especially as they were aware that it was optional in him either to dismiss them or send them on board a man-of-war. It might appear that much inconveniency would be felt at the rock by a change of hands at this critical period, by checking for a time the progress of a building so intimately connected with the best interests of navigation; yet this would be but of a temporary nature, while the injury to themselves might be irrepar-

1810 able. It was now, therefore, required of any man who, in this disgraceful manner, chose to leave the service, that he should instantly make his appearance on deck while the *Smeaton's* boat was alongside. But those below having expressed themselves satisfied with their situation — viz., William Brown, George Gibb, Alexander Scott, John Dick, Robert Couper, Alexander Shephard, James Grieve, David Carey, William Pearson, Stuart Eaton, Alexander Lawrence, and John Spink — were accordingly considered as having returned to their duty. This disposition to mutiny, which had so strongly manifested itself, being now happily suppressed, Captain Pool got orders to proceed for Arbroath Bay, and land the two men he had on board, and to deliver the following letter at the office of the workyard: —

"*On board of the Tender off the Bell Rock,*
*22nd June,* 1810, *eight o'clock p.m.*

"DEAR SIR,— A discontented and mutinous spirit having manifested itself of late among the landing-master's crew, they struck work to-day and demanded an additional allowance of beer, and I have found it necessary to dismiss D——d and M——e, who are now sent on shore with the *Smeaton*. You will therefore be so good as to pay them their wages, including this day only. Nothing can be more unreasonable than the conduct of the seamen on this occasion, as the landing-master's crew not only had their own allowance on board of the tender, but, in the course of this day, they had drawn no fewer than twenty-four quart pots of beer from the stock of the *Patriot* while unloading her.— I remain, yours truly,

"ROBERT STEVENSON.

"To MR. LACHLAN KENNEDY,
Bell Rock Office, Arbroath."

On despatching this letter to Mr. Kennedy, the writer returned to the beacon about nine o'clock, where this afternoon's business had produced many conjectures, especially when the *Smeaton* got under weigh, instead of proceeding to land her cargo. The bell on the beacon being rung, the artificers were assembled on the bridge, when the affair was explained to them. He, at the same time, congratulated them upon the first appearance of mutiny being happily set at rest by the dismissal of its two principal abettors.

At the rock, the landing of the materials and the building operations of the light-room store went on successfully, and in a way similar to those of the provision store. To-day it blew fresh breezes; but the seamen nevertheless landed twenty-eight stones, and the artificers built the fifty-eighth and fifty-ninth courses. The works were visited by Mr. Murdoch, junior, from Messrs. Boulton and Watt's works of Soho. He landed just as the bell rung for prayers, after which the writer enjoyed much pleasure from his very intelligent conversation; and, having been almost the only stranger he had seen for some weeks, he parted with him, after a short interview, with much regret. 1810 Sunday, 24th June.

Last night the wind had shifted to north-east, and, blowing fresh, was accompanied with a heavy surf upon the rock. Towards high-water it had a very grand and wonderful appearance. Waves of considerable magnitude rose as high as the solid or level of the entrance-door, which, being open to the south-west, was fortunately to the leeward; but on the windward side the sprays flew like lightning up the sloping sides of the building; and although the walls were now elevated sixty-four feet above the rock, and about fifty-two feet from high-water mark, yet the artificers were nevertheless wetted, and occasionally interrupted, in their operations on the top of the walls. These appearances were in a great measure new at the Bell Rock, there having till of late been no building to conduct the seas, or object to compare with them. Although, from the description of the Eddystone Lighthouse, the mind was prepared for such effects, yet they were not expected to the present extent in the summer season; the sea being most awful to-day, whether observed from the beacon or the building. To windward, the sprays fell from the height above noticed in the most wonderful cascades, and streamed down the walls of the building in froth as white as snow. To leeward of the lighthouse the collision or meeting of the waves produced a pure white kind of *drift;* it rose about thirty feet in height, like a fine downy mist, which, in its fall, felt upon the face and hands more like a dry powder than a liquid substance. The effects of these seas, as they raged among the beams and dashed upon the higher parts of the beacon, produced a temporary tremulous motion throughout the whole fabric, which to a stranger must have been frightful. Thursday, 28th June.

The writer had now been at the Bell Rock since the latter end of May, or about six weeks, during four of which he had been a constant Sunday, 1st July.

1810 inhabitant of the beacon without having been once off the rock. After witnessing the laying of the sixty-seventh or second course of the bed-room apartment, he left the rock with the tender and went ashore, as some arrangements were to be made for the future conduct of the works at Arbroath, which were soon to be brought to a close; the landing-master's crew having, in the meantime, shifted on board of the *Patriot*. In leaving the rock, the writer kept his eyes fixed upon the lighthouse, which had recently got into the form of a house, having several tiers or stories of windows. Nor was he unmindful of his habitation in the beacon — now far overtopped by the masonry,— where he had spent several weeks in a kind of active retirement, making practical experiment of the fewness of the positive wants of man. His cabin measured not more than four feet three inches in breadth on the floor; and though, from the oblique direction of the beams of the beacon, it widened towards the top, yet it did not admit of the full extension of his arms when he stood on the floor; while its length was little more than sufficient for suspending a cot-bed during the night, calculated for being triced up to the roof through the day, which left free room for the admission of occasional visitants. His folding table was attached with hinges, immediately under the small window of the apartment, and his books, barometer, thermometer, portmanteau, and two or three camp-stools, formed the bulk of his movables. His diet being plain, the paraphernalia of the table were proportionally simple; though everything had the appearance of comfort, and even of neatness, the walls being covered with green cloth formed into panels with red tape, and his bed festooned with curtains of yellow cotton-stuff. If, in speculating upon the abstract wants of man in such a state of exclusion, one were reduced to a single book, the Sacred Volume — whether considered for the striking diversity of its story, the morality of its doctrine, or the important truths of its gospel — would have proved by far the greatest treasure.

Monday, 2nd July. In walking over the workyard at Arbroath this morning, the writer found that the stones of the course immediately under the cornice were all in hand, and that a week's work would now finish the whole, while the intermediate courses lay ready numbered and marked for shipping to the rock. Among other subjects which had occupied his attention to-day was a visit from some of the relations of George Dall, a young man who had been impressed near Dundee in the month of February

last; a dispute had arisen between the magistrates of that burgh and the Regulating Officer as to his right of impressing Dall, who was *bona fide* one of the protected seamen in the Bell Rock service. In the meantime, the poor lad was detained, and ultimately committed to the prison of Dundee, to remain until the question should be tried before the Court of Session. His friends were naturally very desirous to have him relieved upon bail. But, as this was only to be done by the judgment of the Court, all that could be said was that his pay and allowances should be continued in the same manner as if he had been upon the sick-list. The circumstances of Dall's case were briefly these: — He had gone to see some of his friends in the neighbourhood of Dundee, in winter, while the works were suspended, having got leave of absence from Mr. Taylor, who commanded the Bell Rock tender, and had in his possession one of the Protection Medals. Unfortunately, however, for Dall, the Regulating Officer thought proper to disregard these documents, as, according to the strict and literal interpretation of the Admiralty regulations, a seaman does not stand protected unless he is actually on board of his ship, or in a boat belonging to her, or has the Admiralty protection in his possession. This order of the Board, however, cannot be rigidly followed in practice; and therefore, when the matter is satisfactorily stated to the Regulating Officer, the impressed man is generally liberated. But in Dall's case this was peremptorily refused, and he was retained at the instance of the magistrates. The writer having brought the matter under the consideration of the Commissioners of the Northern Lighthouses, they authorized it to be tried on the part of the Lighthouse Board, as one of extreme hardship. The Court, upon the first hearing, ordered Dall to be liberated from prison; and the proceedings never went further. 1810

Being now within twelve courses of being ready for building the cornice, measures were taken for getting the stones of it and the parapet-wall of the light-room brought from Edinburgh, where, as before noticed, they had been prepared and were in readiness for shipping. The honour of conveying the upper part of the lighthouse, and of landing the last stone of the building on the rock, was considered to belong to Captain Pool of the *Smeaton*, who had been longer in the service than the master of the *Patriot*. The *Smeaton* was, therefore, now partly loaded with old iron, consisting of broken railways and other lumber which had been lying about the rock. After landing Wednesday, 4th July.

1810 these at Arbroath, she took on board James Craw, with his horse and cart, which could now be spared at the workyard, to be employed in carting the stones from Edinburgh to Leith. Alexander Davidson and William Kennedy, two careful masons, were also sent to take charge of the loading of the stones at Greenside and stowing them on board of the vessel at Leith. The writer also went on board, with a view to call at the Bell Rock and to take his passage up the Firth of Forth. The wind, however, coming to blow very fresh from the eastward, with thick and foggy weather, it became necessary to reef the mainsail and set the second-jib. When in the act of making a tack towards the tender, the sailors who worked the head-sheets were, all of a sudden, alarmed with the sound of a smith's hammer and anvil on the beacon, and had just time to put the ship about to save her from running ashore on the north-western point of the rock, marked "James Craw's Horse." On looking towards the direction from whence the sound came, the building and beacon-house were seen, with consternation, while the ship was hailed by those on the rock, who were no less confounded at seeing the near approach of the *Smeaton;* and, just as the vessel cleared the danger, the smith and those in the mortar gallery made signs in token of their happiness at our fortunate escape. From this occurrence the writer had an experimental proof of the utility of the large bells which were in preparation to be rung by the machinery of the revolving light; for, had it not been the sound of the smith's anvil, the *Smeaton,* in all probability, would have been wrecked upon the rock. In case the vessel had struck, those on board might have been safe, having now the beacon-house as a place of refuge; but the vessel, which was going at a great velocity, must have suffered severely, and it was more than probable that the horse would have been drowned, there being no means of getting him out of the vessel. Of this valuable animal and his master we shall take an opportunity of saying more in another place.

Thursday, 5th July. The weather cleared up in the course of the night, but the wind shifted to the N.E. and blew very fresh. From the force of the wind, being now the period of spring-tides, a very heavy swell was experienced at the rock. At two o'clock on the following morning the people on the beacon were in a state of great alarm about their safety, as the sea had broke up part of the floor of the mortar gallery, which was thus cleared of the lime-casks and other buoyant articles; and, the

alarm-bell being rung, all hands were called to render what assistance 1810
was in their power for the safety of themselves and the materials. At this time some would willingly have left the beacon and gone into the building: the sea, however, ran so high that there was no passage along the bridge of communication, and, when the interior of the lighthouse came to be examined in the morning, it appeared that great quantities of water had come over the walls — now eighty feet in height — and had run down through the several apartments and out at the entrance door.

The upper course of the lighthouse at the workyard of Arbroath was completed on the 6th, and the whole of the stones were, therefore, now ready for being shipped to the rock. From the present state of the works it was impossible that the two squads of artificers at Arbroath and the Bell Rock could meet together at this period; and as in public works of this kind, which had continued for a series of years, it is not customary to allow the men to separate without what is termed a "finishing-pint," five guineas were for this purpose placed at the disposal of Mr. David Logan, clerk of works. With this sum the stone-cutters at Arbroath had a merry meeting in their barrack, collected their sweethearts and friends, and concluded their labours with a dance. It was remarked, however, that their happiness on this occasion was not without alloy. The consideration of parting and leaving a steady and regular employment, to go in quest of work and mix with other society, after having been harmoniously lodged for years together in one large "guildhall or barrack," was rather painful.

While the writer was at Edinburgh he was fortunate enough to meet with Mrs. Dickson, only daughter of the late celebrated Mr. Smeaton, whose works at the Eddystone Lighthouse had been of such essential consequence to the operations at the Bell Rock. Even her own elegant accomplishments are identified with her father's work, she having herself made the drawing of the vignette on the title-page of the *Narrative of the Eddystone Lighthouse*. Every admirer of the works of that singularly eminent man must also feel an obligation to her for the very comprehensive and distinct account given of his life, which is attached to his reports, published, in three volumes quarto, by the Society of Civil Engineers. Mrs. Dickson, being at this time returning from a tour to the Hebrides and Western Highlands of Scotland, had heard of the Bell Rock works, and from their similarity to those of the

Friday, 6th July.

1810 Eddystone, was strongly impressed with a desire of visiting the spot. But on inquiring for the writer at Edinburgh, and finding from him that the upper part of the lighthouse, consisting of nine courses, might be seen in the immediate vicinity, and also that one of the vessels, which, in compliment to her father's memory, had been named the *Smeaton,* might also now be seen in Leith, she considered herself extremely fortunate; and having first visited the works at Greenside, she afterwards went to Leith to see the *Smeaton,* then loading for the Bell Rock. On stepping on board, Mrs. Dickson seemed to be quite overcome with so many concurrent circumstances, tending in a peculiar manner to revive and enliven the memory of her departed father, and on leaving the vessel she would not be restrained from presenting the crew with a piece of money. The *Smeaton* had been named spontaneously, from a sense of the obligation which a public work of the description of the Bell Rock owed to the labours and abilities of Mr. Smeaton. The writer certainly never could have anticipated the satisfaction which he this day felt in witnessing the pleasure it afforded to the only representative of this great man's family.

Friday, 20th July. The gale from the N. E. still continued so strong, accompanied with a heavy sea, that the *Patriot* could not approach her moorings; and although the tender still kept her station, no landing was made to-day at the rock. At high-water it was remarked that the spray rose to the height of about sixty feet upon the building. The *Smeaton* now lay in Leith loaded, but, the wind and weather being so unfavourable for her getting down the Firth, she did not sail till this afternoon. It may here be proper to notice that the loading of the centre of the light-room floor, or last principal stone of the building, did not fail, when put on board, to excite an interest among those connected with the work. When the stone was laid upon the cart to be conveyed to Leith, the seamen fixed an ensign-staff and flag into the circular hole in the centre of the stone, and decorated their own hats, and that of James Craw, the Bell Rock carter, with ribbons; even his faithful and trusty horse Bassey was ornamented with bows and streamers of various colours. The masons also provided themselves with new aprons, and in this manner the cart was attended in its progress to the ship. When the cart came opposite the Trinity House of Leith, the officer of that Corporation made his appearance dressed in his uniform, with his staff of office; and when it reached the harbour, the shipping in the different

tiers where the *Smeaton* lay hoisted their colours, manifesting by these trifling ceremonies the interest with which the progress of this work was regarded by the public, as ultimately tending to afford safety and protection to the mariner. The wind had fortunately shifted to the S. W., and about five o'clock this afternoon the *Smeaton* reached the Bell Rock. 1810

Friday, 27th July.

The artificers had finished the laying of the balcony course, excepting the centre-stone of the light-room floor, which, like the centres of the other floors, could not be laid in its place till after the removal of the foot and shaft of the balance-crane. During the dinner-hour, when the men were off work, the writer generally took some exercise by walking round the walls when the rock was under water; but to-day his boundary was greatly enlarged, for, instead of the narrow wall as a path, he felt no small degree of pleasure in walking round the balcony and passing out and in at the space allotted for the light-room door. In the labours of this day both the artificers and seamen felt their work to be extremely easy compared with what it had been for some days past.

Sunday, 29th July.

Captain Wilson and his crew had made preparations for landing the last stone, and, as may well be supposed, this was a day of great interest at the Bell Rock. "That it might lose none of its honours," as he expressed himself, the *Hedderwick* praam-boat, with which the first stone of the building had been landed, was appointed also to carry the last. At seven o'clock this evening the seamen hoisted three flags upon the *Hedderwick*, when the colours of the *Dickie* praam-boat, tender, *Smeaton,* floating light, beacon-house, and lighthouse, were also displayed; and, the weather being remarkably fine, the whole presented a very gay appearance, and, in connection with the associations excited, the effect was very pleasing. The praam which carried the stone was towed by the seamen in gallant style to the rock, and, on its arrival, cheers were given as a finale to the landing department.

Monday, 30th July.

The ninetieth or last course of the building having been laid to-day, which brought the masonry to the height of one hundred and two feet six inches, the lintel of the light-room door, being the finishing-stone of the exterior walls, was laid with due formality by the writer, who, at the same time, pronounced the following benediction: "May the Great Architect of the Universe, under whose blessing this perilous work has prospered, preserve it as a guide to the mariner."

1810 Friday, 3rd Aug. At three p.m., the necessary preparations having been made, the artificers commenced the completing of the floors of the several apartments, and at seven o'clock the centre stone of the light-room floor was laid, which may be held as finishing the masonry of this important national edifice. After going through the usual ceremonies observed by the brotherhood on occasions of this kind, the writer, addressing himself to the artificers and seamen who were present, briefly alluded to the utility of the undertaking as a monument of the wealth of British commerce, erected through the spirited measures of the Commissioners of the Northern Lighthouses by means of the able assistance of those who now surrounded him. He then took an opportunity of stating that toward those connected with this arduous work he would ever retain the most heartfelt regard in all their interests.

Saturday, 4th Aug. When the bell was rung as usual on the beacon this morning, every one seemed as if he were at a loss what to make of himself. At this period the artificers at the rock consisted of eighteen masons, two joiners, one millwright, one smith, and one mortar-maker, besides Messrs. Peter Logan and Francis Watt, foreman, counting in all twenty-five; and matters were arranged for proceeding to Arbroath this afternoon with all hands. The *Sir Joseph Banks* tender had by this time been afloat, with little intermission, for six months, during the greater part of which the artificers had been almost constantly off at the rock, and were now much in want of necessaries of almost every description. Not a few had lost different articles of clothing, which had dropped into the sea from the beacon and building. Some wanted jackets; others, from want of hats, wore nightcaps; each was, in fact, more or less curtailed in his wardrobe, and, it must be confessed, that at best the party were but in a very tattered condition. This morning was occupied in removing the artificers and their bedding on board of the tender; and, although their personal luggage was easily shifted, the boats had, nevertheless, many articles to remove from the beacon-house, and were consequently employed in this service till eleven a.m. All hands being collected and just ready to embark, as the water had nearly overflowed the rock, the writer, in taking leave, after alluding to the harmony which had ever marked the conduct of those employed on the Bell Rock, took occasion to compliment the great zeal, attention, and abilities of Mr. Peter Logan and Mr. Francis Watt, foremen; Captain James Wilson, landing-master; and Captain David Taylor,

commander of the tender, who, in their several departments, had so faithfully discharged the duties assigned to them, often under circumstances the most difficult and trying. The health of these gentlemen was drunk with much warmth of feeling by the artificers and seamen, who severally expressed the satisfaction they had experienced in acting under them; after which the whole party left the rock. 1810.

In sailing past the floating light mutual compliments were made by a display of flags between that vessel and the tender; and at five p.m. the latter vessel entered the harbour of Arbroath, where the party were heartily welcomed by a numerous company of spectators, who had collected to see the artificers arrive after so long an absence from the port. In the evening the writer invited the foremen and captains of the service, together with Mr. David Logan, clerk of works at Arbroath, and Mr. Lachlan Kennedy, engineer's clerk and book-keeper, and some of their friends, to the principal inn, where the evening was spent very happily; and after "His Majesty's Health" and "The Commissioners of the Northern Lighthouses" had been given, "Stability to the Bell Rock Lighthouse" was hailed as a standing toast in the Lighthouse service.

The author has formerly noticed the uniformly decent and orderly deportment of the artificers who were employed at the Bell Rock Lighthouse, and to-day, it is believed, they very generally attended church, no doubt with grateful hearts for the narrow escapes from personal danger which all of them had more or less experienced during their residence at the rock. Sunday, 5th Aug.

The *Smeaton* sailed to-day at one p.m., having on board sixteeen artificers, with Mr. Peter Logan, together with a supply of provisions and necessaries, who left the harbour pleased and happy to find themselves once more afloat in the Bell Rock service. At seven o'clock the tender was made fast to her moorings, when the artificers landed on the rock and took possession of their old quarters in the beacon-house, with feelings very different from those of 1807, when the works commenced. Tuesday, 14 Aug.

The barometer for some days past had been falling from 20.90, and to-day it was 29.50, with the wind at N.E., which, in the course of this day, increased to a strong gale accompanied with a sea which broke with great violence upon the rock. At twelve noon the tender rode very heavily at her moorings, when her chain broke at about ten

1810 fathoms from the ship's bows. The kedge-anchor was immediately let go, to hold her till the floating buoy and broken chain should be got on board. But while this was in operation the hawser of the kedge was chafed through on the rocky bottom and parted, when the vessel was again adrift. Most fortunately, however, she cast off with her head from the rock, and narrowly cleared it, when she sailed up the Firth of Forth to wait the return of better weather. The artificers were thus left upon the rock with so heavy a sea running that it was ascertained to have risen to the height of eighty feet on the building. Under such perilous circumstances it would be difficult to describe the feelings of those who, at this time, were cooped up in the beacon in so forlorn a situation, with the sea not only raging under them, but occasionally falling from a great height upon the roof of their temporary lodging, without even the attending vessel in view to afford the least gleam of hope in the event of any accident. It is true that they had now the masonry of the lighthouse to resort to, which, no doubt, lessened the actual danger of their situation; but the building was still without a roof, and the dead-lights, or storm-shutters, not being yet fitted, the windows of the lower story were stove in and broken, and at high-water the sea ran in considerable quantities out at the entrance door.

Thursday, 16th Aug. The gale continues with unabated violence to-day, and the sprays rise to a still greater height, having been carried over the masonry of the building, or about ninety feet above the level of the sea. At four o'clock this morning it was breaking into the cook's berth, when he rang the alarm-bell, and all hands turned out to attend to their personal safety. The floor of the smith's, or mortar-gallery, was now completely burst up by the force of the sea, when the whole of the deals and the remaining articles upon the floor were swept away, such as the cast-iron mortar-tubs, the iron hearth of the forge, the smith's bellows, and even his anvil were thrown down upon the rock. Before the tide rose to its full height to-day some of the artificers passed along the bridge into the lighthouse, to observe the effects of the sea upon it, and they reported that they had felt a slight tremulous motion in the building when great seas struck it in a certain direction, about high-water mark. On this occasion the sprays were again observed to wet the balcony, and even to come over the parapet wall into the interior of the light-room.

Thursday, 23rd Aug. The wind being at W.S.W., and the weather more moderate, both

the tender and the *Smeaton* got to their moorings on the 23rd, when all hands were employed in transporting the sash-frames from on board of the *Smeaton* to the rock. In the act of setting up one of these frames upon the bridge, it was unguardedly suffered to lose its balance, and in saving it from damage, Captain Wilson met with a severe bruise in the groin, on the seat of a gun-shot wound received in the early part of his life. This accident laid him aside for several days. 1810

The sash-frames of the light-room, eight in number, and weighing each 254 pounds, having been got safely up to the top of the building, were ranged on the balcony in the order in which they were numbered for their places on the top of the parapet-wall; and the balance-crane, that useful machine having now lifted all the heavier articles, was unscrewed and lowered, to use the landing-master's phrase, "in mournful silence." **Monday, 27th Aug.**

The steps of the stair being landed, and all the weightier articles of the light-room got up to the balcony, the wooden bridge was now to be removed, as it had a very powerful effect upon the beacon when a heavy sea struck it, and could not possibly have withstood the storms of a winter. Everything having been cleared from the bridge, and nothing left but the two principal beams with their horizontal braces, James Glen, at high-water, proceeded with a saw to cut through the beams at the end next the beacon, which likewise disengaged their opposite extremity, inserted a few inches into the building. The frame was then gently lowered into the water, and floated off to the *Smeaton* to be towed to Arbroath, to be applied as part of the materials in the erection of the lightkeepers' houses. After the removal of the bridge, the aspect of things at the rock was much altered. The beacon-house and building had both a naked look to those accustomed to their former appearance; a curious optical deception was also remarked, by which the lighthouse seemed to incline from the perpendicular towards the beacon. The horizontal rope-ladder before noticed was again stretched to preserve the communication, and the artificers were once more obliged to practise the awkward and straddling manner of their passage between them during 1809. **Sunday, 2nd Sept.**

At twelve noon the bell rung for prayers, after which the artificers went to dinner, when the writer passed along the rope-ladder to the lighthouse, and went through the several apartments, which were now cleared of lumber. In the afternoon all hands were summoned to the

1810 interior of the house, when he had the satisfaction of laying the upper step of the stair, or last stone of the building. This ceremony concluded with three cheers, the sound of which had a very loud and strange effect within the walls of the lighthouse. At six o'clock Mr. Peter Logan and eleven of the artificers embarked with the writer for Arbroath, leaving Mr. James Glen with the special charge of the beacon and railways, Mr. Robert Selkirk with the building, with a few artificers to fit the temporary windows to render the house habitable.

Sunday, 14th Oct. On returning from his voyage to the Northern Lighthouses, the writer landed at the Bell Rock on Sunday, the 14th of October, and had the pleasure to find, from the very favourable state of the weather, that the artificers had been enabled to make great progress with the fitting up of the light-room.

Friday, 19th Oct. The light-room work had proceeded, as usual, to-day under the direction of Mr. Dove, assisted in the plumber-work by Mr. John Gibson, and in the brazier work by Mr. Joseph Fraser; while Mr. James Slight, with the joiners, were fitting up the storm-shutters of the windows. In these several departments the artificers were at work till seven o'clock p.m., and it being then dark, Mr. Dove gave orders to drop work in the light-room; and all hands proceeded from thence to the beacon-house, when Charles Henderson, smith, and Henry Dickson, brazier, left the work together. Being both young men, who had been for several weeks upon the rock, they had become familiar, and even playful, on the most difficult parts about the beacon and building. This evening they were trying to outrun each other in descending from the light-room, when Henderson led the way; but they were in conversation with each other till they came to the rope-ladder distended between the entrance-door of the lighthouse and the beacon. Dickson, on reaching the cook-room, was surprised at not seeing his companion, and inquired hastily for Henderson. Upon which the cook replied, "Was he before you upon the rope-ladder?" Dickson answered, "Yes; and I thought I heard something fall." Upon this the alarm was given, and links were immediately lighted, with which the artificers descended on the legs of the beacon, as near the surface of the water as possible, it being then about full tide, and the sea breaking to a considerable height upon the building, with the wind at S.S.E. But, after watching till low-water, and searching in every direction upon the rock, it appeared that poor Henderson must have unfortu-

nately fallen through the rope-ladder, and been washed into the deep water. 1810

The deceased had passed along this rope-ladder many hundred times, both by day and night, and the operations in which he was employed being nearly finished, he was about to leave the rock when this melancholy catastrophe took place. The unfortunate loss of Henderson cast a deep gloom upon the minds of all who were at the rock, and it required some management on the part of those who had charge to induce the people to remain patiently at their work; as the weather now became more boisterous, and the nights long, they found their habitation extremely cheerless, while the winds were howling about their ears, and the waves lashing with fury against the beams of their insulated habitation.

The wind had shifted in the night to N.W., and blew a fresh gale, while the sea broke with violence upon the rock. It was found impossible to land, but the writer, from the boat, hailed Mr. Dove, and directed the ball to be immediately fixed. The necessary preparations were accordingly made, while the vessel made short tacks on the southern side of the rock, in comparatively smooth water. At noon Mr. Dove, assisted by Mr. James Slight, Mr. Robert Selkirk, Mr. James Glen, and Mr. John Gibson, plumber, with considerable difficulty, from the boisterous state of the weather, got the gilded ball screwed on, measuring two feet in diameter, and forming the principal ventilator at the upper extremity of the cupola of the lightroom. At Mr. Hamilton's desire, a salute of seven guns was fired on this occasion, and, all hands being called to the quarter-deck, "Stability to the Bell Rock Lighthouse" was not forgotten. Tuesday, 23rd Oct.

On reaching the rock it was found that a very heavy sea still ran upon it; but the writer having been disappointed on two former occasions, and, as the erection of the house might now be considered complete, there being nothing wanted externally, excepting some of the storm-shutters for the defence of the windows, he was the more anxious at this time to inspect it. Two well-manned boats were therefore ordered to be in attendance; and, after some difficulty, the wind being at N.N.E., they got safely into the western creek, though not without encountering plentiful sprays. It would have been impossible to have attempted a landing to-day, under any other circumstances than with boats perfectly adapted to the purpose, and with seamen who knew Tuesday, 30th Oct.

1810 every ledge of the rock, and even the length of the sea-weeds at each particular spot, so as to dip their oars into the water accordingly, and thereby prevent them from getting entangled. But what was of no less consequence to the safety of the party, Captain Wilson, who always steered the boat, had a perfect knowledge of the set of the different waves, while the crew never shifted their eyes from observing his motions, and the strictest silence was preserved by every individual except himself.

On entering the house, the writer had the pleasure to find it in a somewhat habitable condition, the lower apartments being closed in with temporary windows, and fitted with proper storm-shutters. The lowest apartment at the head of the staircase was occupied with water, fuel, and provisions, put up in a temporary way until the house could be furnished with proper utensils. The second, or light-room store, was at present much encumbered with various tools and apparatus for the use of the workmen. The kitchen immediately over this had, as yet, been supplied only with a common ship's caboose and plate-iron funnel, while the necessary cooking utensils had been taken from the beacon. The bedroom was for the present used as the joiners' workshop, and the strangers' room, immediately under the light-room, was occupied by the artificers, the beds being ranged in tiers, as was done in the barrack of the beacon. The light-room, though unprovided with its machinery, being now covered over with the cupola, glazed and painted, had a very complete and cleanly appearance. The balcony was only as yet fitted with a temporary rail, consisting of a few iron stanchions, connected with ropes; and in this state it was necessary to leave it during the winter.

Having gone over the whole of the low-water works on the rock, the beacon, and lighthouse, and being satisfied that only the most untoward accident in the landing of the machinery could prevent the exhibition of the light in the course of the winter, Mr. John Reid, formerly of the floating light, was now put in charge of the lighthouse as principal keeper; Mr. James Slight had charge of the operations of the artificers, while Mr. James Dove and the smiths, having finished the frame of the light-room, left the rock for the present. With these arrangements the writer bade adieu to the works for the season. At eleven a.m. the tide was far advanced; and there being now little or no shelter for the boats at the rock, they had to be pulled through the breach

of sea, which came on board in great quantities, and it was with extreme difficulty that they could be kept in the proper direction of the landing-creek. On this occasion he may be permitted to look back with gratitude on the many escapes made in the course of this arduous undertaking, now brought so near to a successful conclusion. 1810

On Monday, the 5th, the yacht again visited the rock, when Mr. Slight and the artificers returned with her to the workyard, where a number of things were still to prepare connected with the temporary fitting up of the accommodation for the light-keepers. Mr. John Reid and Peter Fortune were now the only inmates of the house. This was the smallest number of persons hitherto left in the lighthouse. As four lightkeepers were to be the complement, it was intended that three should always be at the rock. Its present inmates, however, could hardly have been better selected for such a situation; Mr. Reid being a person possessed of the strictest notions of duty and habits of regularity from long service on board of a man-of-war, while Mr. Fortune had one of the most happy and contented dispositions imaginable. **Monday, 5th Nov.**

From Saturday the 10th till Tuesday the 13th, the wind had been from N.E. blowing a heavy gale; but to-day, the weather having greatly moderated, Captain Taylor, who now commanded the *Smeaton*, sailed at two o'clock a.m. for the Bell Rock. At five the floating light was hailed and found to be all well. Being a fine moonlight morning, the seamen were changed from the one ship to the other. At eight, the *Smeaton* being off the rock, the boats were manned, and taking a supply of water, fuel, and other necessaries, landed at the western side, when Mr. Reid and Mr. Fortune were found in good health and spirits. **Tuesday, 13th Nov.**

Mr. Reid stated that during the late gales, particularly on Friday, the 30th, the wind veering from S.E. to N.E., both he and Mr. Fortune sensibly felt the house tremble when particular seas struck, about the time of high-water; the former observing that it was a tremor of that sort which rather tended to convince him that everything about the building was sound, and reminded him of the effect produced when a good log of timber is struck sharply with a mallet; but, with every confidence in the stability of the building, he nevertheless confessed that, in so forlorn a situation, they were not insensible to those emotions which, he emphatically observed, "made a man look back upon his former life."

1811 Friday, 1st Feb. The day, long wished for, on which the mariner was to see a light exhibited on the Bell Rock at length arrived. Captain Wilson, as usual, hoisted the float's lanterns to the topmast on the evening of the 1st of February; but the moment that the light appeared on the rock, the crew, giving three cheers, lowered them, and finally extinguished the lights.



